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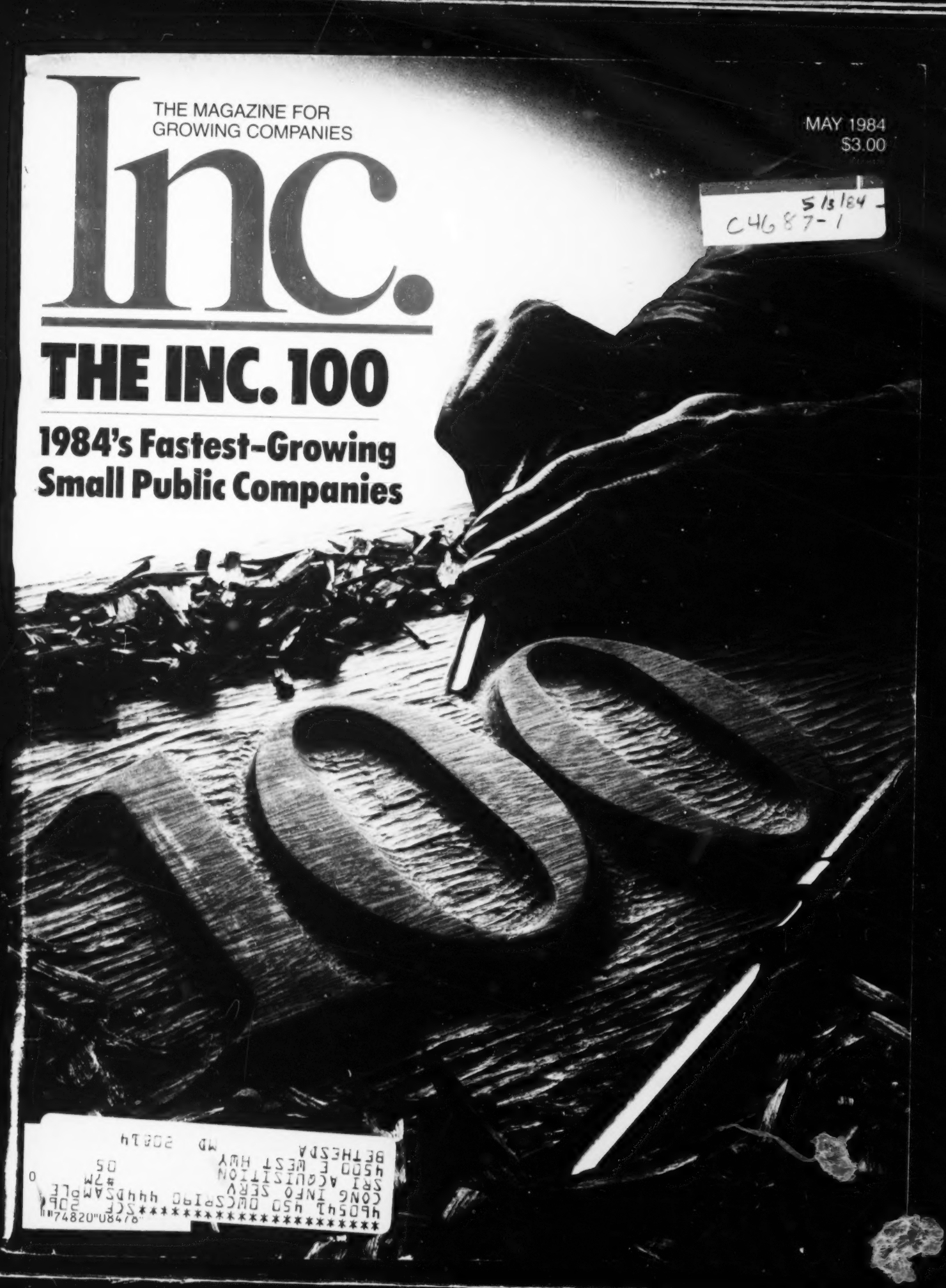
THE INC. 100

1984's Fastest-Growing Small Public Companies



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SHOW AND SELL

Trade shows aren't just for backslapping anymore. Some companies have made them the focus of their marketing strategy.

By Susan Buchsbaum and Mark K. Metzger

Once a year, sales staffers of Acco International get a chance to ditch their business suits and show up for work in unusual, not to say fantastical, attire. In 1980, at the National Office Products Association (NOPA) show in Chicago, required dress was American cowboy, and the message was that Acco's market spans the continent. One year later, the sales staff appeared on the scene as firefighters; they worked out of the charred frame of their old booth and managed to spark interest in the company's line of office-protection products. The following year the affair was formal, with salesmen in white tie and top hats, bowing to Acco's theme, "Tomorrow's Office Products," or "T.O.P." At the NOPA show last October, the sales staff had settled into tennis whites. "It's Time to Proform" was the theme, an effective one as it turned out. During that one three-day show, sales for Acco—a $131-million full-line office-products manufacturer—hit an all-time record of $700,000.

Like many other companies over the past few years, Acco has discovered that trade shows can be much more than a beer-drinking, back-slapping good time. With some advance planning, they can fill a key role in a company's marketing strategy. In concert with print ads, direct mail, and telemarketing, trade shows can be used to identify potential customers, determine which products they are interested in, and target the prospects' authorized buyers.

This year, Acco will spend twice as much on trade shows as it did last year. Yet the real challenge, Acco executives say, is not just attracting attention with well-orchestrated theatrics, but in using the entire trade show effort to create effective one-on-one meetings between salespeople and prospects.

The substance of those meetings may vary from show to show. At the NOPA show, Acco's aim is to write a lot of orders for a new product or product line. At the Back-to-School Show, a smaller event held in New York City last February, the goal was to amass detailed information on serious sales leads.

By show's end, Acco had a few hundred sales prospects, most of them lined up the way Greg Hewitt, an Acco field sales manager, lined up Lionel Eltis. With a few studiously nonchalant questions, Hewitt determined that Eltis, the owner of a small chain of stores in Louisiana, could be a serious customer. Then Hewitt set to work, quickly but deftly eliciting everything he needed to know about Eltis's company—for example, its size, number of stores, and distributor operation—to set him up for a sales call. Before the conversation had ended, Hewitt had put Eltis's name, and the name of his buyer, on a standardized card that would soon go into Acco's sales system.

That done, Hewitt jockeyed Eltis back into the aisle and looked for his next prospect. The whole process was over in a couple of minutes.

If just three of the leads from the Back-to-School Show pan out, the show will have paid for itself, says Acco marketing manager William S. Carvell. The rest, as they say, is gravy.

Photograph by Oscar & Associates

Trade shows have served the company well. Acco, which came into existence in 1903 as American Clip Co., restarted its corporate life in 1971 when management executed a leveraged buyout from Gary Industries, creating an independent, privately held company. Since then, Acco has ridden the surging growth in the office-based information economy, expanding its product line to encompass nearly any item used in an office to bind, protect, or store. Last year the company (now public) unveiled its boldest new product line yet: furniture designed for use with the terminals, printers, and workstations of the electronic office.

As it grew, the company broadened its participation in trade shows, in a constant search for new outlets to promote its widening array of products. At the same time, it began to change its approach to the entire process, seeking more and more concrete results for its expenditures.

"Until the early 1970s, we went to trade shows more out of goodwill—to make an appearance, to maintain a presence," recalls William Walter, president of Acco's U.S. division. "We showed up, shook hands, conversed, that sort of thing." When the company eventually decided a more aggressive cost-effective approach was needed, it used trade shows as an opportunity to both promote existing products and introduce new ones. "Every year now, we sell more than the year before," says Walter.

Not every company can recount that record of success. But the trade show has become an increasingly popular marketing medium for companies in fields as diverse as coal mining and computers. The proliferation of products, the increasing complexity of the marketplace, and the rocketing costs of making a field sales call have all forced companies to reexamine their marketing strategies and, in many cases, to hike their commitments to trade shows. For example, by doubling its trade show budget this year, Acco has allocated as much for shows as for print advertising. A 1982 study by Data Resources Inc., a Lexington, Mass., consulting firm, reported that trade show expenditures logged a real increase of nearly 70% from 1974 to 1980, rising from $9 billion to $15 billion in inflation-adjusted dollars.

Robert M. Lightfoot III

Head start: *At Acco, William S. Carvell, marketing manager, begins planning for some shows six months in advance.*

While trade shows, with perhaps a few exceptions, cannot serve as the sole marketing vehicle for a company or even a product line, they do offer special opportunities for small, growing businesses. A good trade show brings together all the elements of a particular industry, from buyers to suppliers to investors, making it possible for a company with no name and no sales to develop both in a fairly short time. A company can yank a new product into the marketplace quickly, positioning it, demonstrating it to potential customers, gathering reactions and—if it is successful—organizing a network of dealers, all within the few days of a trade show. And on the exhibit floor, all companies are on a relatively equal footing.

"At a trade show, I can stand up and be counted with the big guys," says Graham Miller, chairman of LTX Corp., an $80-million-a-year semiconductor test equipment maker in Westwood, Mass. "I can create a company image that is, shall we say, 'anticipatory.' We can, quite simply, look bigger than we are."

LTX, founded in 1976, has had a strong commitment to trade show marketing from its inception. Like Acco, the company now spends as much on trade shows as it does on print advertising.

"When we were starting, we were operating out of a garage. If a customer went to

Oscar & Associates

"Until the early 1970s, we went to trade shows more out of good will—to make an appearance, maintain a presence," says the head of Acco's U.S. division. "We showed up, shook hands, that sort of thing. The company eventually decided on a more aggressive approach. Every year now we sell more than the year before."

visit IBM, he'd see a pretty impressive building. If a customer came to see us, he'd see a garage. I'd rather make our impression with a booth at a trade show, where we can look as good as the competition," explains Miller, an ebullient Britisher.

But the chief attraction for most companies is the simple cost-effectiveness of making sales contacts and presentations on the trade show floor. In 1981, it cost an average of $178 for a salesperson to make an industrial sales call, according to a study by the McGraw-Hill Laboratory of Advertising Performance. A 1981 survey by the Trade Show Bureau, an industry group, pegged the average cost of a trade show contact at just $68. Moreover, because so many attendees go to a trade show because they are actually ready to buy, it takes, on average, far fewer follow-up calls to close a sale to a lead generated at a trade show. Normal field sales calls often are made on the wrong people—those who are not authorized to make a purchase or who simply are not in the market to make one. McGraw-Hill calculated that it took 5.1 sales calls, on average, to close an industrial sale. A Trade Show Bureau report estimated that it takes, on average, 0.8 field sales calls to book an order from a trade show lead.

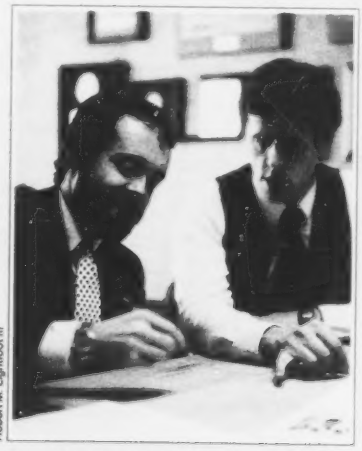
"I've heard estimates of the cost of a sales call as high as $250," says Acco's Carvell. "A trade show, whatever the specific figures, is a very economical way to make contacts."

□

Those inherent advantages can be fully exploited only through careful planning—a step that many companies overlook or underemphasize. For Acco, however, planning is a priority, and it starts months ahead of time, in a series of meetings at Acco U.S. headquarters in Wheeling, Ill., a rustic suburb northwest of Chicago. Discussion of the mid-February Back-to-School Show began in early December, for example, while the NOPA show, Acco's biggest trade show, comes under consideration six months ahead of opening day.

The initial step is to identify the goals for the show. "The first thing an exhibitor wants to do is to know the audience to which he wants to communicate. Then he must figure out *what* he wants to communicate," explains Fred Kitzing, president of Kitzing Inc., a Chicago-based trade show marketing firm that numbers Acco among its clients. "It sounds basic, doesn't it? Ridiculously simple? So simple that such goal-setting is easily and frequently overlooked."

Many companies set no goals at all for their trade shows, Kitzing points out, attending with only a vague intention to make a good impression for the company



Robert M. Lightfoot III

Down to details: *Once goals for a trade show are set, Kitzing's Michael Pierdiluca (left) and Acco's William Cogdill draw detailed plans.*

and to make or renew some contacts with customers. Others simply want to write as much business as possible on the floor, and often wind up cannibalizing sales that the field staff would have made anyway.

Kitzing, who pioneered the concept of trade show marketing more than 20 years ago, operates one of the few full-service trade show consulting agencies in the country. Admore Inc. of Shrewsbury, Mass., and New York City–based Muir Cornelius Moore, an ad agency with a strong trade show marketing division, offer a similarly broad range of advice and service.

At Acco, a Kitzing client since 1979, Carvell usually meets with William S. Cogdill, internal sales manager; Michael Pierdiluca, the Acco account representative for Kitzing, and an Acco national sales manager to set basic strategy for each show. In discussing the upcoming October NOPA show, for example, "we have to decide whether we're introducing new products or expanding our base within a distribution channel," Carvell explains. "Those are our primary reasons for going to shows. Then, taking a look at what we're offering, we ask ourselves, Do we do a theme around a new product in particular or around a whole line?

"Then we basically talk ideas: brainstorm. Is this an order-writing show or a lead-generating show? That shapes what we set up for conference rooms and sales arena.

"For the NOPA show, our planning is very precise," Carvell says. "We sit down with our blueprints and discuss every detail, down to the last ashtray and the placement of the Velcro."

For Acco, a key long-term goal is to increase its penetration of the computer dealer market with its line of data storage files and other computer-related products. Few of the existing retail computer deal-

Einzig Photography

The chief attraction for most companies is the sheer cost-effectiveness of trade show marketing. The average field sales call today may cost as much as $250. A 1981 survey by a trade show industry group put the average cost of a booth contact at just over $68.

ers, estimated at from 4,500 to 10,000, have Acco products in their stores, making them fertile ground for Acco's sales force. "Thus, for Comdex [a major microcomputer trade show], we may set a goal of 300 sales leads and we may set a secondary goal of gathering a couple of thousand names to go on a list for direct mail," Carvell says.

The goals—and the execution—may be vastly different for other companies. A case in point is IBM, which is not an Acco competitor, but which exhibits at a number of the computer shows that Acco has recently begun to enter with its data storage systems.

"They're so big and have so much. They overwhelm. I mean, it looks like it's the IBM show and somebody else showed up," says Carvell. "They never talk price qualification, because their presence in the marketplace is so strong. They may fill out a lead card, but they don't sell so much as they demonstrate. It's a different sort of sales pitch, and you have to recognize that they have different goals from you: that although they might overwhelm, that's their goal, after all, and it isn't yours. So, on that score, you're not competing. Don't even try. And don't feel diminished."

For example, Sierra Manufacturing Co. of Virginia Inc., one of the top makers of wood-burning stoves, had a rather different goal going into the Home Center Show in Dallas in 1983. "We were in an industry that was maturing rapidly," explains Robert Wells, national sales manager for Sierra. "We began to realize that if we wanted to continue to grow, we would have to increase our market share, and the best way to do that would be to move outside the markets that we had traditionally operated in, the alternative energy markets.

"We decided that we wanted to try to reach consumers through home centers," Wells continues, "but we didn't know anything about the industry. We did know that if we just started to study the industry, it could take us years to carry out our research. The trade show seemed to be the quickest, least expensive way to get into that market and develop contacts with the dealers."

Based on the feedback from that show, Sierra Manufacturing was able to develop a new marketing concept, which centered on the production of less expensive wood stoves to be sold to consumers through home centers, Wells says.

Exhibiting companies, no matter what their size, find that trade shows can be especially useful in introducing a new product to the marketplace. The company can count on getting initial reaction from customers—which is especially important if it is a high-technology product, whose life cycle may be measured in months, rather than years. "Fifty percent of what we sell was not available last year," explains LTX's Miller. "There is no faster way to get it to our customers than through trade shows. And our products sell for $400,000 or more. There's no way a customer is going to spend 400 grand without actually seeing the equipment in operation."

Robert M. Lightfoot III

Total effect: *Fred Kitzing lets clients talk out their own ideas about booth design, but the important thing, he says, is to create a selling environment.*

LTX, of course, is not the first electronics company to discover the special advantages that trade shows hold for high-tech marketing. Electronics shows generally have been the fastest-growing segment of the trade show industry over the past few years, according to Martha Wolf, director of marketing communications at Gould Inc. and president of the International Exhibitors Association, the trade group for companies that use trade shows. While attendance and exhibit space dipped during the recession for many of the more established shows, the electronics shows exploded. Comdex, for example, was launched in 1979 as a meeting place for small-computer manufacturers and independent sellers of small systems products. It ballooned from just over 26,000 square feet of exhibits and 4,000 visitors that first year to a staggering 570,000 square feet and more than 83,000 visitors in 1983. Softcon, a show strictly for software, burst upon the scene in February of this year with a whopping 260,000 square feet of exhibit space and about 20,000 attendees.

In fact, the success of the electronics shows has been so startling that at least one city, Dallas, now has plans for an exhibition center for electronics products, and Boston is in the midst of setting one up as well. The centers would be, in effect, permanent trade shows.

While the importance of the challenges

Oscar & Associates

"At a trade show, I can stand up and be counted with the big guys," says the chief executive of a $50-million electronics firm. "I can create an image that is, shall we say, 'anticipatory.' We can, quite simply, look bigger than we are."

facing many electronics companies is magnified because of the dramatic growth of the industries they are in, the challenges are similar to those that all companies must confront. Introduction of new products, positioning and repositioning of a company, exploration of new markets, developing and maintaining market share, keeping an eye on the competition, and cementing relationships with distributors are all crucial to the life of any company.

But identifying those goals—the science—is often the easy part. The hard part—the art—is the execution.

□

A brilliantly positioned print advertising campaign may be worthless if it is executed unimaginatively, and the same is true of a trade show marketing effort. If creating an effective print campaign calls for the careful eye of the artist, then fash-

HOW TO WORK THE BOOTH

You're pitching your product at a trade show and you have just completed a brief spiel to a small group of potential customers in your booth. Two members of your audience walk away.

That may be good.

But one of the remaining prospects is really taken by your pitch. He doesn't just hear you out, he lingers, pumping you for details, asking about old products, chatting about business.

That's not so good.

On the trade show floor, familiar selling caveats are out. Limited time, not patience, is the main factor. The goal is to identify potential customers as quickly and conclusively as possible, to eliminate abruptly anyone who is not a prospective buyer, and to capture swiftly, on a lead card, all the information necessary for contacting a likely client once the show ends.

"It's better to sell the next step in a sales cycle than to sell the product," counsels Diane Weintraub, director of marketing and communications at Timeplex Inc. in Woodcliff Lake, N.J., a company that uses trade shows extensively in the marketing of its data communications products. "The idea is to keep the traffic flow going, and not to buttonhole one guy for an hour.

"Assume, for instance, that the attendance analysis we look at before a given show indicates that we can expect 15 customers to pass by our booth every hour. Our sales staff can handle 8 customers an hour. That means they've got to make some quick decisions about who's out, who's in. They've got to qualify and qualify and qualify."

"Qualifying" is the process of determining whether a visitor to the booth is a serious sales prospect or a mere tire-kicker. The quicker the booth staff can qualify prospects, the more effective it is. The more nonprospects they get rid of, the better they are doing.

That approach, of course, goes against the grain of most selling. Thus, many companies that use trade show marketing have found it necessary to untrain their top field sales staffers and retrain them in trade show selling. Infocom Inc., for example, a Cambridge, Mass., software company, had its booth staffers put through a daylong workshop in preparation for their first trade show—the Softcon show in New Orleans this spring.

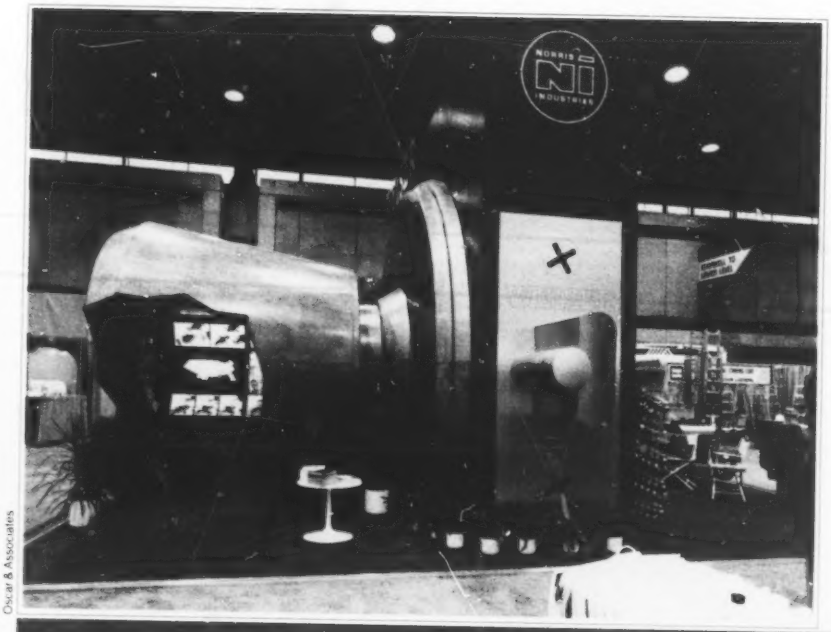
"You have a great booth, a great product, and a great opportunity," Admore Inc. trade show consultant and executive vice-president Robert Francisco told the 20 Infocom employees. "But all that's mere fluff if you don't sell effectively."

Francisco hammered home the differences between normal sales techniques and trade show selling, outlining the roles that each staff member would play on the floor and detailing, step by step, the method for moving a visitor from early qualification into the booth for further information-gathering, and then briskly but gracefully back to the aisle.

Training salespeople for trade shows is no easy task, says Charyn Ofstie, a Chicago-based trade show consultant who has run dozens of such sessions. "You're up against egos," she explains, "often working with highly skilled salespeople who have to unlearn some instinctive habits.

"The whole point of a trade show is the chance to meet head-on," she says. "We role-play being out there, up front, making eye contact. We define specific actions, dialogue. Otherwise, a sales rep at a trade show is like an actor thrust out on the stage before he's learned his lines."

—*S.B.*



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To be effective, all the elements of a trade show campaign have to work together. "Designing an exhibit, that ain't no trick," says an advertising agency executive. "But integrating the trade show process, that's the challenge."

ioning a good trade show effort calls for the dramatic flair of an impresario coupled with the skills of a teacher.

"It's like building a house and opening a Broadway show at the same time," says Carvell.

Acco has run up a string of hits at the NOPA show. At each of its past four exhibits Acco has used a different theme—and succeeded, each time, in writing more orders than the previous year. With 1980's Western motif, "we were making an image statement," Carvell says. "We were telling people that we do business all over." The following year's firefighting motif was actually a result of Acco's belt tightening. The recession had begun, and Carvell had decided that he didn't want to spend the money to buy a new booth. So he burned down much of the old one in controlled fashion and used the theme of protection products.

The next year's show followed a series of nationwide sales presentations in which Acco had composed a song-and-dance revue with the title "That's Entertainment!" Carvell melded elements of that program with the NOPA show theme of "Tomorrow's Office Products." And last year's "It's Time to Pro-form" theme was the most successful to date.

"A show has got to be dynamic," says LTX's Miller. "You can't take a shop-window, glass-case approach. You've got to make your points in memorable fashion and you have to make sure they underscore the benefits to the customer.

"It doesn't cost much in extra time and effort to put on a superior trade show presentation. That 10% extra effort will get a 900% difference in results. The point is not to throw money at the project, but to be creative, inventive."

The creative elements, however, have to harmonize with the entire marketing plan. In the hubbub of a trade show, it is a challenge to draw attention to one booth. It is an even bigger challenge to attract the attention of the right group and to present, at the same time, the proper message.

"Designing an exhibit that ain't no trick," says Muir Cornelius Moore's chairman and chief executive officer Bill Muir. "But integrating the trade show process, that's the challenge."

Fred Kitzing says he often lets a new client go through a sort of catharsis about the booth design, allowing the client to present all of his or her notions about how the booth should look before Kitzing gets down to the serious business of planning. "I like to let them get the booth off their minds, because, in the end, it's only the backdrop," Kitzing says. "The important thing is to create a selling environment."

The central element in most effective trade show programs, Kitzing says, is the face-to-face meeting between the company representative and the visitor. A well-designed exhibit or a memorable slogan

THAT'S SHOW BIZ

The trade show business itself has become a growth industry. Exhibitors spent about $7 billion in 1980, and the Trade Show Bureau estimates that 1983 expenditures were $9 billion. In addition, the number of trade shows doubled between 1974 and 1982, rising from 4,500 to 9,000, according to the bureau.

The following is a list of the top 10 trade shows in 1983:

Rank	Name of show	Exhibit space (sq. ft.)	Attendance	Location
1.	Intl. Summer Consumer Electronics Show	736,000	83,311	Chicago
2.	National Hardware Show	660,000	73,676	Chicago
3.	Intl. Winter Consumer Electronics Show	638,000	78,126	Las Vegas
4.	NHMA/Intl. Housewares Exposition (July)	597,980	15,262 buyers	Chicago
5.	NHMA/Intl. Housewares Exposition (Jan.)	580,213	18,000 buyers	Chicago
6.	COMDEX/Fall	560,200	83,400	Las Vegas
7.	RVIA/Recreational Vehicle Industry Assn. Annual National RV Show	491,126	9,899	Louisville
8.	MHI/Manufactured Housing Institute's Natl. Manufactured Housing Show	465,500	10,000 est.	Louisville
9.	Intl. Marine Trades Exhibit & Convention	445,500	33,000	Chicago
10.	Offshore Technology Conference	431,525	59,986	Houston

Source: *Trade Show Week*

Producing a successful trade show effort calls for the dramatic flair of an impresario, coupled with the skills of a teacher. "It's like buying a house and opening a Broadway show at the same time," says Acco's Carvell, dressed (far left) for opening night.

can convey a message, but hardly better than a print advertisement could. What a print ad can't do is present a product demonstration or provide the introduction to a one-on-one sales pitch. Personal contact is the essence of the trade show's advantage over other marketing media; all the elements of the trade show effort should be coordinated to set the stage for those meetings as efficiently as possible.

"We like to say we're in the communications business, rather than the exhibit business, because this is a highly charged, always active medium," says Charyn Ofstie, a Chicago trade show marketing consultant who spent several years at Kitzing.

Not all of those encounters have to result in sales or sales leads. But at Acco, as at most companies, this goal is usually top priority, and the scheme reflects that.

The less expensive, single-page, black-and-white literature is offered at the front of the booth. The more detailed, four-color literature is kept at the back, Carvell explains. That way, if a visitor seems like a good sales prospect, the salesperson can buy some time by bringing the prospect into the booth to provide more literature. That time is used to elicit, through casual conversation, important information about the prospect: Is the person authorized to make the buying decision? If so, what kind of merchandise is he interested in, and when would a decision be made? This is called "qualifying" the prospect. If the customer is a bit reticent, Acco salespeople sometimes fumble around with the literature in a conscious effort to stretch the conversation and ferret out the information they want.

Then the salesperson's job is to whisk the prospect back out of the booth as quickly as possible, to make room for the next one. The limited span of the trade show forces the booth staff to work quickly and sometimes brusquely, in contrast to the normal patterns of sales staffers. Martha Wolf of the International Exhibitors Association says a booth staffer should be able to decide in 30 seconds whether a potential prospect is worth devoting time to. Often the most important task of the booth personnel is to discard as many nonqualified prospects as possible in order to winnow out the qualified leads. That runs counter to the instincts of many field sales staffers, which makes preshow training an important step in the planning process for many companies (see "How to Work the Booth," page 72).

It is not an easy process, as exhibitors attest. And it is a far cry from the old attitude of trade shows as primarily social affairs.

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"You have to pay your dues continuously. It never just happens," says Diane Weintraub, marketing executive for Timeplex, a $100-million data communications equipment maker in Woodcliff Lake, N.J. "The world is not a static place. You have to keep up with its fluctuations."

Timeplex has kept up nicely. Weintraub says the company has gotten back $7 in sales for every dollar spent on trade shows. In recent years that return has increased to $12.

Both Timeplex and Acco seek to generate sales leads at a show, but Acco, in addition, tries to identify the leads well before the trade show begins. "We use a mix of direct mail, trade shows, and field activity in our marketing," Carvell says. "Through direct mail, we want to get people to *show* yes, not just *say* yes. When potential clients arrive at an Acco booth with an Acco ad in hand, they immediately become targets for sales calls. "After a show, we may find ourselves with 350 leads. Those who returned the bingo cards immediately go to our reps. They're hot. Those who didn't use the card, maybe they'll get a call, some more preselling to set up an appointment for our sales reps.

"Getting 5,000 leads at a trade show sounds good, but we couldn't handle it at this point," Carvell adds. "Getting 5,000 and culling it down to 500 good, strong prospects, that's a fruitful trade show in my mind."

Exhibitors aren't always as conscious of the need to follow up on the leads that a trade show can generate. "We actually had a client who packed up his exhibit when the show was over and stored it in our warehouse," says Robert Francisco, executive vice-president of Admore. "When we were checking through the pieces, we found all the lead cards stuffed in the exhibit cabinet. The company hadn't even missed them!"

At Acco, however, not only are leads carefully channeled to the proper field sales office for follow up, but also a computer is used to track each lead internally to see just how valuable the trade show is as a source of potential clients. That is part of the internal selling job that Carvell faces, convincing his sales staff that trade shows provide high-quality leads that turn into sales.

Such an acknowledgement is probably two years away," Carvell admits. "What will really make a difference is when we're able to say that maybe 8 out of 10 leads turned out to be good ones. That's when the sales staff will start coming to us looking for those leads."

When that happens, Carvell plans to be ready. Acco hired a full-time coordinator solely for its trade show efforts, and it plans to exhibit at 16 shows this year, up from 9 in 1983. "But if you don't do them right," Carvell cautions, "you're wasting a lot of money and a lot of opportunity." □

BEST AVAILABLE COPY

Michael Borum

SUGAR BABY

Jimmy Spradley's candy bar has already charmed the South. Can it sweet-talk its way into the national market as well?

By John F. Persinos

James W. Spradley Jr., 28-year-old president of Standard Candy Co., walks in his factory amid brimming hoppers of peanuts and huge vats of caramel, watching a 7,000-gallon tank pour warm chocolate onto clumps of peanuts riding a conveyor belt. The floor is sticky and the atmosphere frenetic as each day the production line churns out more than 150,000 pieces of the company's main product—a round, caloric amalgam of chocolate, peanuts, caramel, and marshmallow with the whimsical name of Goo Goo Cluster.

"When I first got here, this plant was making fewer than 50,000 Goo Goos a day," shouts Spradley, straining to be heard over the din of gurgling chocolate and clanking machinery. "We're still operating at less than 40% capacity, meaning we can meet demand once business *really* starts to take off."

Dan Harvey

Already Spradley has spread the Goo Goo's sales coverage to 23 states (shaded area).

Take off is precisely what Standard Candy, located in Nashville, plans to do. Despite scant cash for advertising and only limited test marketing, Spradley wants to take his southern-based Goo Goo Cluster and sell it all over the country. One day, he dreams, the Goo Goo will be battling with national top-selling brands like Snickers, a rival synthesis of peanuts and chocolate that is America's No. 1 candy bar.

For Standard Candy, with only $7 million in annual sales—and for Spradley,

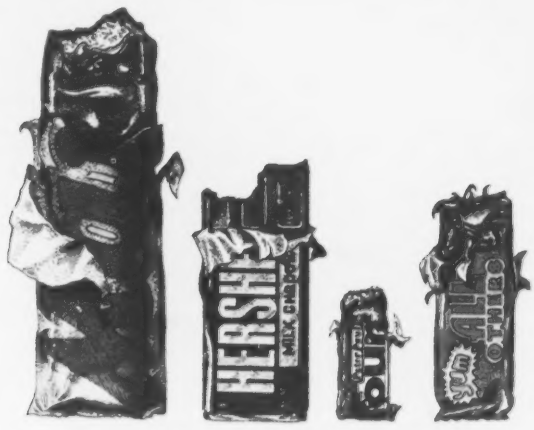
THE CANDY BUSINESS

Major chocolate bar manufacturers
(total annual revenues, 1983)

M&M/Mars	Hershey	Nabisco Confections	Peter Paul Cadbury	Std. Candy
$1.4 bil. (est.)	$1 bil.	$330 mil.	$250 mil.	$7 mil.

An industry dominated by giants, the candy bar business presents formidable obstacles to smaller competitors like Standard Candy. Among the leaders are M&M/Mars, a subsidiary of the nation's largest privately held industrial company, and Hershey Chocolate.

Share of the candy bar market
(wholesale purchasers, 1982)



M&M/Mars	Hershey	Peter Paul Cadbury	All others
43.3%	26.7%	8.3%	22.8%

"All other" candy bars—less than one-quarter of the market—include well-known brands like Butterfinger and Baby Ruth, as well as many lesser-known regional bars. Standard Candy's Goo Goo holds about 5% of the central-Tennessee market, less elsewhere.

who has been in the candy business only two years—it is a heady aspiration. Nationally, candy sales are growing at less than 8% a year, a pace that isn't expected to pick up anytime soon. And although there are hundreds of candy companies in the United States, only two of them account for nearly 70% of the entire candy bar market—M&M/Mars, the candy division of Mars Inc., and Hershey Chocolate Co., the candy subsidiary of Hershey Foods Corp. The twin behemoths—each of which did more than $1 billion worth of business in 1983—manufacture all of the nation's 10 best-selling candy bars and most of the top 20. Yearly sales of Mars's Snickers alone, estimated at more than $300 million, approach the revenues of some *Fortune* 500 companies.

What seems like a quixotic quest, however, must be measured against Standard Candy's two indisputable assets. One is the Goo Goo itself, which enjoys a clientele that is almost cultlike in its devotion. The other is Jimmy Spradley, who is considerably drier behind the ears than either his age or his ambitions might suggest. Put together, they make a combination that may yet elbow one or another of the giants' bars off the retailer's shelf.

Back in 1912, Standard Candy founder Howell H. Campbell invented a candy bar—naming it, so the story runs, after the sounds uttered by his baby son. Since then, the Goo Goo Cluster has been as intertwined with the region of its birth as twanging guitars and misty-blue mountains: Ask a Tennessee good ol' boy to recall his childhood, and Goo Goos are apt to be right up there with hunting and hoedowns in the fond-memory department. Standard has always cultivated this down-home image, mostly by advertising heavily on Nashville's famous *Grand Ole Opry Show*, a country-music spectacle that is heard in about 35 states. "The South's Favorite Candy," the boxes of Goo Goos are labeled.

Until recently, you couldn't buy a Goo Goo more than 200 miles or so from downtown Nashville. But that didn't stop word of the bar or samples of it from trickling into the outside world. Candy aficionado and author Ray Broekel, who consumed two years and over 1,000 candy bars to write *The Great American Candy Bar Book*, announced that the Goo Goo was his all-time favorite. Tourists visiting the Opry—and there are busloads of them every week—tasted the Tennesseans' delight and brought word of it to the folks back home. All told, some $100,000 in annual mail-order business around the world reflects the Goo Goo's mystique. Singers Dinah Shore and Pat Boone, both former Tennessee residents, regularly receive shipments of the bars, as does Hollywood tough-guy James Garner. The company gets as many as 100 letters a week either pleading for Goo Goos or singing their praises.

The Goo Goo has turned up in some other unlikely places as well. In 1982, Bloomingdale's ordered some for its Americana exhibit, as an example of a product indigenous to the South. The exhibit is long gone, but the Goo Goos remain: So far, the store has sold more than $15,000 worth. Recently, too, the bars have become a minor fad in Washington, D.C., endearing themselves to prominent lawmakers like Senate Majority Leader Howard Baker (R-Tenn.), and even, reportedly, to Ronald Reagan himself. Whether the candy has supplanted jelly beans as the favorite snack of the powerful can't be determined for sure. But if its growing trendiness is any indication, Goo Goos could be the hottest Tennessee product to invade the North since Jack Daniel's whiskey.

This possibility is not lost on Jimmy Spradley. Since his candy has already shown such appeal to the jaded palates of New York shoppers, Washington pols, and L.A. glitterati, Spradley reasons it ought to find acceptance throughout the land. "In the next two or three years, it's possible for us to be selling about $5 million worth of Goo Goos in the New York

Illustration by Roger Leyonmark

Advertised heavily on Nashville's *Grand Ole Opry Show* (left), and with a fervently loyal following, including (above, left to right) Senate Majority Leader Howard Baker, actor James Garner, and singer Dinah Shore, the Goo Goo Cluster has an increasing number of fans singing its praises. Standard Candy hopes that word of its product's goodness has begun to travel beyond the South.

market," he says, "and from there, spread to Boston."

Spradley's informal timetable for this coast-to-coast market expansion is five to eight years tops. But although such ambitions are easy to write off as the impossible dreams of youth, Spradley is not your typical 28-year-old CEO. When he began working at Standard Candy in May 1982, the company was coming off a long history of mediocre sales and marketing, and in fact was facing bankruptcy. He has since not only turned the company around, but has also strengthened its distribution channels and tapped additional markets. "Once the company was on the upswing, things got easier," he says with a chuckle. "Turning it around was the tough part."

Spradley wasn't the first to attempt a turnaround. In the early '70s, Howell Campbell III, the founder's son, was getting bored with the candy business, and his own son had no desire to pick up the reins. So Campbell unloaded Standard Candy for $1 million to two Nashville entrepreneurs, James Miller and James Fischer. The company's sales, at roughly $2.5 million, were steady but moribund, and Campbell's lack of enthusiasm was obvious to the new owners. While other candy companies of similar size had shifted at least a decade earlier from direct salespeople to food brokers, for example, Standard Candy still employed a force of about 21 salaried salesmen. Like a tired army of Willy Lomans, they sold the company's products out of the trunks of their cars. Although many had been with the company for more than 40 years, in 1975 then-CEO Miller took the traumatic step of letting them all go. With a new broker-based distribution system in place, sales grew by about 5% a year from 1974 to 1979.

In 1979, the company moved from its antiquated, deteriorating, and grossly inefficient plant in Nashville to a 65,000-square-foot facility on the outskirts of the city. Right about then, however, things began to go wrong. Adapting the new building and moving the operations cost far more than the company had expected, plunging Standard Candy into debt just when interest rates were shooting as high as 21%. In the summer of 1980, a drought blazed across the Sunbelt, devastating the peanut crop and sending the price of peanuts, Goo Goo's second most plentiful ingredient, from 30¢ a pound to $1.50. Then the company foolishly moved to its new facility during the back-to-school season in late summer and early fall, thereby closing down production during the busiest candy-buying months of the year. Standard Candy lost $400,000 in 1980, the biggest loss in its history. It kept losing money in 1981 and 1982.

Enter Jimmy Spradley. In 1982, as the company's nosedive gathered speed, Miller and Fischer came under a great deal of pressure from their bankers to make drastic changes in the company or turn it over to new management. Spradley, with the ink on his 1980 University of Chicago MBA degree scarcely dry, was a manager for a real estate syndicator in Nashville at the time, and learned through the grapevine that Standard Candy might be up for sale. Bored with the work he was doing, and nurturing a long-standing ambition to run a company, he sought help from his father, James Spradley, the former president of Stuckeys Inc., an Atlanta-based roadside-store franchise and large manufacturer of candy.

"I kept hearing how Standard Candy was getting into more and more trouble," remembers Jimmy Spradley. "It seemed like a perfect script had been written for me. I went to my father and said, 'Dad, there's a little company in Nashville that's having problems, and I'd like to get involved. Please come down and talk to the owners. Do it for me.' "

Spradley Sr. obligingly played the role of sugar daddy. After several months of negotiations, he bought a 50% interest in the company and ran the business for a few months, with Fischer remaining as a silent partner and Spradley Jr. learning the ropes. About six months later, he gave his son a 10% interest, crowned him president, and went into semiretirement.

Jimmy Spradley immediately focused his energies on marketing. He racked up sales with almost never-ending promotional campaigns. He motivated brokers with incentives such as bonus trips, and he enticed retailers with discounts. He took particular pains to fill distribution gaps in the company's original central Tennessee market, notably by contacting and bringing aboard important regional retailers that had been overlooked. In his first full week of work for the company, for example, Spradley called Wal-Mart Stores Inc., a major chain of discount department stores in the Sunbelt and the Midwest, and convinced its candy buyer that the Goo Goo Cluster was an indispensable item for any store that sold candy and professed to be Southern. Wal-Mart stocked the candy on a trial basis in 31 Nashville-area stores; when it sold well, Spradley discounted the Goo Goos for about three months, prompting Wal-Mart to put it in 123 stores. Wal-Mart now stocks Goo Goo Clusters in all of its 680 stores, encompass-

Photos left to right: courtesy of Standard Candy; Ken Hawkins/Sygma; Tom Stathis/Gamma-Liaison; Tony Korody/Sygma

ing an area from Oklahoma to Georgia.

By the summer of 1983, sales were strong, the price of peanuts had stabilized at about 50¢ a pound, and debt left by Miller and Fischer was being paid off. Then, with recovery apparently assured, Spradley made his first—and so far his only—major blunder. In an impatient desire to boost sales further, he doubled his usual discounts for some customers over a five-week period. Sales soared, but profits plummeted, and the company lost money for about a month before it put an end to the practice. "I had become hung up on sales growth," confesses Spradley, who has since discovered the virtues of moderation in price-cutting. "I've learned there's more to my company's health than fast growth."

Now, with an impressive turnaround under his belt, the young confectioner is preparing to play ball in the national arena. It is, as they say, the big leagues.

Candy bars, which account for about one-half of the U.S. candy industry, reaped over $5 billion in retail sales in 1983. That is enough to provide every man, woman, and child in America with one bar every week. Yet the business may be one of the hardest markets in the world to break into. "Most consumers of candy are guided by tastes they had when they were children," says Kenneth Rosen, president of American Candy and Tobacco Wholesalers Inc. in Landover, Md. "That creates fierce competition for limited shelf space. It's hard to get someone, especially an adult, to pick up a bar unless he recognizes the brand. A company has to throw massive amounts of advertising and promotional resources behind a product before it even gets noticed, and there's still no guarantee. Remember Nabisco's Reggie bar, and what a flop it was?"

Reggie wasn't the only one. Mars's Forever Yours bar, reintroduced with great fanfare in 1978, was a resounding failure. Hershey's Rally and Toffo bars struck out, too. All told, at least 38 bars have disappeared from the market since 1977. One of the few to have made a hit is the Twix bar, a cookie-and-chocolate treat made by Mars, introduced in 1977, Twix has already muscled its way into the top-10 listing. Another is Hershey's Whatchamacallit, brought out in 1979 and now a $50-million brand, in 17th place.

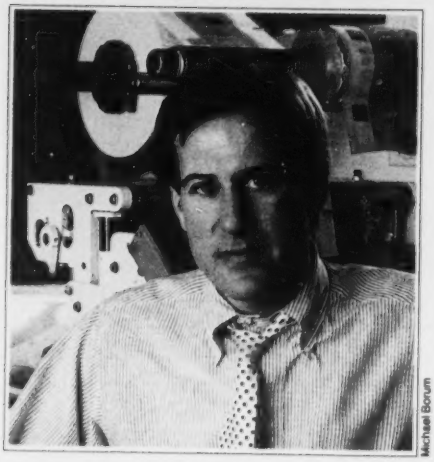
What makes the difference between success and failure? If the giants have any theories, they aren't talking. "We conduct test marketing, hope we've landed on a good formula, and use lots of advertising," explains Bill Deeter, spokesperson for Mars. Hershey's Susan Graham echoes the theme. "Consumer tastes are fickle. If a product looks promising after a market test, we back it up with lots of money and take an educated leap."

Lots of money in this context means lots of money. Hershey's advertising budget is $68 million this year, or almost 10 times Standard Candy's annual *sales*. Spradley's ad budget is $125,000. "To make advertising effective, we'd have to buy a lot of it, and we can only afford a little," says Spradley. "Some day, if our plans work, we'll be forced into using media like television. But that's down the road a bit. For our present purposes, the visibility we have is quite good."

A lot of the Goo Goo's current visibility can be traced to Spradley's shrewd and unconventional promotional tactics. In May 1983, for example, he made a deal with Delta Air Lines to supply Goo Goos as a snack with in-flight meals, bringing the candy bar to the attention of 200,000 travelers every month. Following up on the Bloomingdale's experience, he secured a berth for Goo Goos three months ago in Chicago's Marshall Field & Co. "Stores like Marshall Field and Bloomingdale's were the first to offer once-unknown things like cordless phones and hand-held calculators," says Spradley. "Being on their shelves gets attention, and people start talking about us."

Spradley is careful, however, to complement attention-getting techniques with solid marketing and distribution efforts. The Marshall Field's introduction, for example, was timed to coincide with the Goo Goo's entry into the Chicago market. And he has capitalized on the candy bar's strength below the Mason-Dixon line by carving out toeholds in chains that are prominent both in Tennessee and in other regions. The most recent addition to the fold is The Kroger Co., the nation's second-largest supermarket chain, with stores in southern, central, and southwestern states. The chain agreed to place Goo Goos in about 500 stores in the Tennessee area, where the candy's risk of failure was low. It proved popular, and last March Kroger placed it in all 1,470 stores. In the next 12 months, when Spradley tries to conquer such cities as Denver and Philadelphia, a key stratagem will be to plant Goo Goos in

Standard Candy was in big trouble when Jimmy Spradley first arrived. Not only did he turn the company around, he also strengthened its distribution channels and tapped additional markets. "Once the company was on the upswing," he says, "things got easier. Turning it around was the tough part."



Michael Borum

Michael Borum

"Most consumers of candy are guided by tastes they had when they were children," explains one industry expert. "That creates fierce competition for limited shelf space."

Courtesy of Bloomingdale's

The Goo Goo Cluster has turned up in some unlikely places. In 1982, Bloomingdale's ordered some for its Americana exhibit, as an example of a product indigenous to the South. The exhibit is long gone, but the Goo Goos remain: So far, the store has sold over $15,000 worth.

the local stores of large chains that reach to those cities.

Standard Candy has already appointed brokers in several new cities in addition to Chicago, including Kansas City, Oklahoma City, Houston, Baltimore, Pittsburgh, Cleveland, Detroit, and Washington, D.C. The brokers sell to wholesalers, who in turn peddle the company's products to retail outlets like supermarkets, merchandise stores, and mom-and-pop candy stores.

Candy is known as an "impulse" item: The closer a bar is to a consumer's attention, the more likely that his fingers will get itchy and grab it. Big companies like Mars therefore put a great deal of effort into point-of-sale merchandising techniques, providing retailers with such amenities as freestanding bag display fixtures and vertical candy racks, where candy is next to gum and not beneath it. Spradley's distributors, who can't afford to use such techniques very often, instead emphasize discounting and often use just plain cajolery to get Goo Goos near the cash register.

So far, all of these strategies have worked pretty well. Sales have tripled in the past 18 months, suggesting a high repeat factor among Goo Goo initiates. According to a report put out by Distributor Concepts, a tracking service that measures confectionery sales, Goo Goos jumped during Spradley's brief tenure from #136 on its ranking of the country's favorite candy bars to #79 at the end of 1983. "There's nothing else like it on the market," summarizes Spradley. "Once we get people to try it, they're hooked."

To build up his marketing firepower for future guerilla attacks, Spradley has begun raiding the competition's camp. A year ago, for example, he hired E. David Jarrett, a sales manager at Hershey for the previous 12 years. Jarrett is now Standard Candy's senior sales manager, spending most of his time on the road and in the trenches, rallying the company's 28 brokers.

"Introducing a new bar nationally can be very complex, like raising up a child from birth," Jarrett says matter-of-factly. He adds with a hint of disdain that the Goo Goo Cluster's only limitation all these years has been management's lack of vision. "The Goo Goo is not a new bar. It has a history, and it always had the potential to go national. Our brokers have already seen a dramatic difference, from almost no support when Jimmy first got here, to a great deal of it."

Spradley is also reorganizing his sales structure to prepare for the demands of territorial growth. Last January, a second sales manager, Bob Alexander, was hired away from Mars, and a slot for a third manager is in the works. Currently, sales work is shared by Jarrett, Alexander, and, to a lesser extent, Spradley himself. Soon, he hopes, the Goo Goo's territory will be divided into three regions of roughly equal size, each headed by a manager. By delegating most day-to-day tasks, Spradley is preparing to ease out of selling completely.

"When we hit $30 million or so in sales, which is about all our present factory can handle, we'll start thinking about things like bringing aboard more sales managers and building factories in other regions," says Jarrett. "In the long run, the sky is the limit."

Spradley has not confined his innovations to marketing alone. One of his first moves was the introduction of a new product, the Goo Goo Cluster Supreme, a cluster loaded with pecans instead of peanuts. He says the Supreme has been "ecstatically received," and already accounts for 20% of the company's chocolate sales. To circulate the Goo Goo name even more, he prompted an ice cream company, Fantasy Flavors Inc. in Wheaton, Ill., to devise a mixture called Goo Goo Cluster Ice Cream. Fantasy Flavors has been selling the ice cream's ingredients since March 1983, in return for a nominal licensing fee to Standard Candy.

"It's the fastest-growing new flavor our company has ever introduced," says Bob Anderson, Fantasy Flavors's marketing director, enthusiastically. The ice cream, already picked up by 47 ice cream manufacturers and dairies throughout the United States, has been such a hit that Standard Candy and Fantasy Flavors came out last February with the Goo Goo Cluster Ice Cream Bar, a gooey combination that some observers think will benefit dentists as much as it will Spradley. "Getting the name out in any manner is what counts," says Spradley. "I mean, let's face it: 'Goo Goo' is a dumb-sounding name, but it sells the candy. No one ever forgets it."

Standing in his office, not far from the ceaseless bustle of his factory, Spradley dramatically sweeps his hand across a wall map of the United States. "Once we consolidate the areas we're already in," he says, "we'll continue to slowly spread sales coverage in overlapping circles." He pauses, then, with cheerful certitude, declares, "We can be a major candy company someday."

Perhaps. But for now, the real issue is whether Spradley's scheme can spark a nationwide mastication of Goo Goos, or whether the clusters rolling off his production line are destined to stay as provincial as grits. "Mars and Hershey spend millions of dollars on promotional work and advertising when introducing a new bar," says Lisbeth Echeandia, executive vice-president of American Consulting Corp. in Orlando. "But making it work Standard Candy's way is possible. I do know that the Goo Goo has a lot of Southern appeal. What I don't know is whether that Grand Ole Opry stuff will wash with New Yorkers." □

INC. Cover Story

THE INC. 100

1984's fastest-growing small public companies

The year 1984 marks a time of dramatic change in the INC. 100. Nineteen eighty-three was a record year for new issues, with 888 initial public offerings generating $12.6 billion, and this year's INC. 100, our annual ranking of the fastest-growing public companies in America, reflects this. Ten years ago, 3 out of 4 companies on this year's list didn't even exist. Five years ago, most were still in the start-up stage—small, struggling, and privately held. Today, they are the pacesetters of American business; as a group, this year's 100—including 43 companies that went public during 1983—is the fastest-growing in the six-year history of the list. They are also the youngest, the smallest, the leanest, the most productive—and the least profitable.

Unchanged, however, is the spirit of risk-taking and adventure that lies behind each of these companies. James L. Jaeger, chief executive officer of Cincinnati Microwave Inc. (#33), was an electrical engineer who was intrigued by the sales figures for the Fuzzbuster, a car-mounted radar detector. When he bought one and took it apart in his garage, he decided he could do better. Last year his business, long since out of the garage stage, grossed $57.1 million, with a five-year growth rate of 2,644%. Walter A. Forbes was a restless consultant who got the idea for his electronic shopping service in a conversation with some Harvard Business School professors—then built Comp-U-Card International Inc. (#87) into a $4.2-million business with a five-year growth rate of 919%. Parker Petit's business began in tragedy—the 1970 loss of his son to sudden infant-death syndrome. To spare others that pain, he invented the home monitoring devices that helped lead Healthdyne Inc. (#5) to 1983 sales of $134 million and a staggering 10,336% five-year growth rate.

But fast growth is the sine qua non of membership on the INC. 100. Led by Endevco Inc. (#1), a Dallas energy company, and anchored by Lane Telecommunications Inc. (#100), a Houston maker of microprocessor-based terminal systems, the 100 companies are ranked according to their percentage increase in sales, based on 1979 and 1983 fiscal year results. Over that five-year period, sales of the 100 companies soared by 2,030%, a compound annual growth rate of 115%. Five years ago, the 100 companies averaged $2.1 million in sales. None had even reached $16 million in revenues, and only 4 topped $10 million. Today, the INC. 100's average volume is $44.6 million, with 43 of the companies surpassing the $25-million mark. All but 2 of the 100 registered at least a ninefold increase in sales during the base period.

This remarkable growth rate marks a new historical high for the INC. 100. Last year the average growth for members of the list was 1,177%; during the first five years of the INC. 100, the growth rate has averaged 973%. Last year's cutoff point was 500% growth; this year, the cutoff mark was 783%, a figure that would have disqualified some 33 members of last year's list. In 1983 alone the INC. 100 chalked up a vigorous 67% sales increase, far surpassing the 4% sales growth of the "Corporate Giants of 1983" as recently reported in *Business Week* magazine.

As always, the ranking represents a diverse range of manufacturing, service, and energy-related industries. Computer and computer-related product companies continue to dominate the list, up from 17 representatives last year to 21 this year. The number of data processing and software companies increased from 8 last year to 13 this year. The number of health-care providers and medical-equipment suppliers grew from 20 to 24, while the number of energy companies fell from 11 on last year's list to 7. Twenty-seven alumni from last year were able to earn places on this year's list, an historical low (see "Whatever Happened to the Class of '83?" page 158).

The members of this year's list are substantially younger than

Photograph by Walter Bibikow

in previous years, largely because of 1983's rush to go public. On average, the 1984 INC. 100 companies have been in business less than 10 years; in past years the average has been more than 12 years. In 79 of the companies the original founder still serves as CEO, compared with the 76 founder/CEOs on last year's list. Founders hold an average of 20% of the equity, compared with 21% last year.

Not only are the 100 companies younger, they are also significantly smaller than in past years. The average volume of 1984's members is $44.6 million, compared with last year's average of $53.3 million and the historical average over the first five years of the ranking of $45.9 million. By aggressively combining internal growth and new ventures with a series of acquisitions in the piggyback trailer, trucking, and offshore marine services area, BRAE Corp. (#11), which topped last year's growth list, tops this year's sales list, with total sales of $322.5 million. Tandon Corp. (#20), a four-year veteran of the INC. 100, is number two in total sales, with a volume of $303.4 million. The Home Depot Inc. (#26), a string of retail do-it-yourself home supermarkets, has the highest total sales of any newcomer to the list, with a volume of $256.1 million (see "New Faces of 1984").

Smaller in sales volume, the 1984 INC. 100 are also leaner in personnel, employing an average of 506 workers each, the lowest figure in the six-year history of the list. Employment on last year's list averaged 683 workers per company, while the historical average is 699. At the same time, however, the 1984 INC. 100 companies have been responsible for generating more new jobs than members of any previous class. Last year alone, the number of employees in the group rose 52%, while over the past five years the 100 have recorded a whopping increase of 835%, a particularly significant figure compared with the 10.5% *decrease* registered by the top 500 industrials. Topping the list in employee growth are two companies new to the 100, Servamatic Solar Systems Inc. (#18) and Applied Circuit Technology Inc. (#12), with gains of 29,900% and 16,100%, respectively. Last year's number one in employee growth, Consul Corp. (#6), ranks third this year, adding another 1,400 employees in 1983 alone.

The 1984 INC. 100 reached an historical high in productivity as well. Using sales per employee as a yardstick, this year's 100 companies averaged $88,116, up from $78,069 last year, and a five-year historical average of $67,878. Here, too, a comparison between members of the *Fortune 500* and the INC. 100 is instructive. With $138,600 in sales per worker, for example, Kaypro Corp. (#42) rang up 47% more sales per employee last year than IBM Corp. Altos Computer Systems (#28) was even more productive, generating almost twice as many sales dollars per worker as the computer giant. Compared with McDonald's Corp., Pizza Time Theatre Inc. (#17) pumps out nine times as much volume per employee. And in the game business, Centuri Inc. (#39) beats Bally Manufacturing Corp. fourfold.

While the majority of the INC. 100 companies expanded internally during the 1979–83 period, acquisitions played a key role in the growth of 45 others, including Crime Control Inc. (#58) and Healthdyne, two members of last year's list that have successfully followed a clearly defined acquisition strategy. Healthdyne's takeover fever began with the acquisition of a series of small retail dealers to provide distribution channels for its home health

INC. 100 PROFILE

Number of companies by industry	
Manufacturing	51
Services	42
Mining (including oil and gas)	7
Total sales 1983 (million)	$4,457
Change (1979–83)	+2030.38%
Change (1982–83)	+66.94%
Total net income 1983 (million)	$173.2
Total net income 1979 (million)	($.793)
Median sales 1983 (million)	$20.22
Median sales 1979 (million)	$0.78
Compound annual sales growth rate (1979–83)	
Total sales	114.84%
Range	72.38%–357.40%
Median	100.89%
Net income as percentage of sales (1983)	
Range	loss to 0.48%–41.29%
Median	5.70%
No. acquiring other companies (1979–83)	45
No. incorporated since 1974	77
Total no. employees	
1983	50,578
1979	5,410
Change 1979–83	834.90%

LEADERS IN EMPLOYEE GROWTH

Company (INC. 100 rank)	1979 empl.	1983 empl.	% growth
Servamatic Solar (18)	3	900	29,900
Applied Circuit (12)	1	162	16,100
Consul (6)	40	3,600	8,900
TeleVideo Sys. (8)	11	867	7,782
BRAE (11)	19	1,208	6,258
ComputerCraft (14)	9	356	3,856
Info. Resources (15)	12	430	3,483
Emulex (4)	12	407	3,292
Forum Group (98)	120	4,000	3,233
HCW Oil & Gas (36)	4	128	3,100

TOP 10 PERFORMERS 1983 PRODUCTIVITY ($000)*

Company (INC. 100 rank)	Sales per employee
Ultimate(3)	$594.5
Electro-Kinetic Systems (68)	500.0
Centuri (39)	466.7
Jeffrey Martin (75)	464.4
Pope, Evans & Robbins (55)	460.2
Teleconcepts (84)	459.7
BGS Systems (71)	387.5
U.S. Health Care Systems (91)	357.0
Independence Health Plan(7)	345.7
Polymeric Resources (86)	320.1

*Excludes capital-intensive energy developers and companies whose primary business is leasing or real estate

1983 SALES LEADERS ($000)

Company (INC. 100 rank)	Sales
BRAE (11)	$322,479
Tandon (20)	303,369
Home Depot (26)	256,100
Pope, Evans & Robbins (55)	184,065
TeleVideo Systems (8)	168,718
Nutri/System (78)	167,892
Diasonics (27)	166,800
Pizza Time Theatre (17)	165,500
AGS Computers (82)	145,911
Centuri (39)	140,000

TOP 10 PERFORMERS: 1983 PROFITABILITY

Company (INC. 100 rank)	Net income as % of sales
HCW Oil & Gas (36)	41.29
Phoenix American (73)	22.91
Wedtech (52)	18.52
Emulex (4)	18.12
C. P. Rehab (69)	17.95
Info. Resources (15)	17.55
Cincinnati Microwave (33)	17.54
Kaypro (42)	17.13
Nautilus Enviromedical (89)	17.00
Quality Micro Systems (38)	16.99

WHERE THE INC. 100 ARE BASED: TOP STATES

State	1984	1983
California	27	20
Massachusetts	8	3
New Jersey	8	5
Texas	8	10
Colorado	7	5
New York	5	11
Connecticut	4	3
Georgia	4	2
Minnesota	4	7
Indiana	3	2
Maryland	3	0
Pennsylvania	3	4

care equipment; then, last year, the $132.7-million company swallowed Narco Scientific Inc., an $80-million high-technology hospital systems manufacturer that helped swell the parent's growth rate to 10,336%. "Doctors prescribe the equipment the patient is to use at home," CEO Petit explains. "If you want to see home-care products, you'd better get into the hospital first."

Crime Control's acquisition strategy has been based on expanding its markets geographically, rather than by new-product introduction. "We target a region in terms of the growth of its crime rate," director of investor and public relations John Gibbs explains. Since 1980, the Indianapolis-based company has bought 16 smaller security companies based in Houston, southeast Florida, and California, by melding the companies to achieve economies of scale, computerizing heavily, and upgrading the technology the company has achieved growth of 1,305%.

Analysis above the bottom line reveals strong commitment to research and development among the INC. 100. Among the 63 companies for which R&D figures are available, development expenditures topped $200 million last year, up from $8.6 million five years ago. The hefty sum represents 7.5% of sales. Heading the list of the biggest R&D spenders are Genentech (#62), Tandon, Diasonics (#27), and ISC Systems (#40). Valex Petroleum Inc. (#93) tops the list of R&D spenders when measured as a percent of sales, with 129% spent drilling in the Ventura Basin north of Los Angeles, and in Kansas. "Now is a good time to be exploring for new gas deposits because of the decreased drilling costs," Valex president Sigmund Rosenfeld explains. At least 16 of the companies spent more than 10% of their sales on R&D, including two bio-tech companies: Genentech, which spent 78%, and Genex Corp. (#23), which spent 54%.

> The members of this year's list are much younger than in previous years, largely because of 1983's rush to go public.

In terms of earnings, the members of 1984's INC. 100 show a far more ragged bottom line than their predecessors. As a group, the 100 companies were unprofitable five years ago, with 43 indicating red ink on their P&Ls. That has improved dramatically, although at the end of 1983, 19 were still wrestling with deficits. Two out of 3 companies posted gains in earnings last year, raising their total net profit to a modest 3.9% of sales, with a median of 5.7%, significantly lower than last year's median of 9.6%. Disregarding the 19 companies with losses, however, net income

WHATEVER HAPPENED TO THE CLASS OF '83?

Led by Healthdyne (#5 this year), Consul (#6), and BRAE (#11), 27 of the 1983 INC. 100 companies graduated to the 1984 listing. Of those, 4 moved up in standing. The other 23 slipped to lower rankings but remain members of an elite club where sales growth over the past five years exceeding 1,400% is more the rule than the exception.

What of the 73 companies that failed to qualify this year? Most of them—40 to be exact—continue to achieve spectacular growth, but at less than the blistering pace of 1984's top 100. Twenty-seven of the companies, in fact, rank among the second 100 fastest-growing publicly held companies. They range from Swanton Corp. (#101), with a five-year sales gain of 778%, to Computer Associates International Inc. (#200), with a 395% jump. In between are other outstanding performers such as C3, CACI, Cullinet Software, M.D.C., and Ventrex Laboratories—all of whom have more than quintupled their sales in the past five years.

Eighteen other companies saw sales falter in 1983 and therefore were disqualified. Not surprisingly, they include six companies in the petroleum industry. Hardest hit were Hadson Petroleum Corp., whose sales plunged 52% last year to $21.0 million, and Monument Energy Services Inc., an oilfield services outfit whose sales dropped more than 48%, to $20.5 million. Faring best in the sextet of energy companies was Gulf Energy Corp., which held its sales decline to 12%.

Among others experiencing setbacks last year were Intertec Data Systems Corp. and Machine Technology Inc., which recorded sales decreases of 29% and 27%, respectively. Battling lesser downturns, with drops of 6% to 12%, were Sykes Datatronics, Vector Graphic, Lexidata, and Cetus.

Eleven companies from '83's list did not meet another criterion: sales of more than $100,000 but less than $25 million in the base year 1979. That includes Nelson Research & Development Co., a pharmaceutical producer whose '79 sales were only $32,000 (down from $130,000 in '78). In 1983, however, the company's volume exceeded $3.3 million, more than doubling the previous year. Ten others had passed the $25-million mark by 1979—Apple Computer, CPT, Cray Research, Dysan, Intergraph, Liz Claiborne, North American Watch, Pengo Industries, Reeves Communications, and Tandem Computers. While all but Pengo Industries Inc. have at least tripled their sales since 1979, the all-time star is clearly Apple Computer Inc. The company not only chalked up a sales gain of 1,953% in the past five years, it also soared from less than $1 million to almost $1 billion in seven years.

Two companies on last year's roster have been acquired by larger companies. Teleco Oilfield Services Inc., a $51.6-million offshore drilling specialist, was recently acquired by Sonat Inc., a $2.7-billion energy giant formerly known as Southern Natural Resources. And last October, Godfather's Pizza Inc. encountered a stock offer it couldn't refuse. In a transaction valued at $308 million, the pizza chain linked up with Chart House Inc., a $382-million operator/franchisor of steak, Mexican, and Burger King restaurants.

Finally, the Class of '83 is not without casualties. From the position of #18 on last year's list, Chemical Investors Inc. plunged into bankruptcy last June. Once a high flier in the industrial-tape business, following a series of buyouts that included Borden Inc.'s Mystik Tape division, Chemical Investors became mired in mismanagement that led to charges of inventory thefts, improper accounting, and loan violations. More recent is the collapse of Xonics Inc. (#99 last year), a $119-million maker of medical diagnostic equipment. Although the company had been carrying losses for five years, it had counted on new X-ray and tomography units to resuscitate its bottom line. However, run-ins with the Securities and Exchange Commission, a lawsuit over accounting methods, plus overwhelming development costs and interest charges finally prompted management to pull the plug and seek protection under Chapter 11.

was a far more respectable 7.4% of sales.

Overall, 25 of the companies more than doubled their profits from 1982 to '83, while 9 climbed into the black. Among the more spectacular performances were those recorded by Kaypro, which soared out of the red and into the black by $12.9 million; Consul, which rang up a 2,773% increase in earnings; and Byers Communications Systems (#74), with a 1,834% gain in the profit column. Bolstered by 10 companies that more than doubled or tripled their profits last year, those companies in the health-care industry turned in the most favorable group performance.

> The 1984 INC. 100 companies have generated more new jobs than members of any previous class.

Diasonics Inc. (#27), the California-based diagnostic imaging systems company, was the big loser, recording nearly $65 million in red ink on sales of $166.8 million in fiscal 1983. "We saw maybe five years of disasters compacted into one," vice-president of investor relations Timothy Craig explains. "It was Murphy's Law from beginning to end." Projection of market expansion turned out to be wildly optimistic throughout the industry, causing widespread price-cutting and eventually forcing the company to lay off staff and write down assets.

Buttressed by newly infused equity, 2 out of 3 INC. 100 companies boast current ratios of 2.0 or better. The average current ratio for the 100 is 3.9, with only 4 companies whose current liabilities exceed their current assets, including Nautilus Enviromedical Systems (#89), Movie Systems (#96), Terrano (#53), and Comp-U-Card International. Of that quartet, only Nautilus closed 1983 in the black, although Comp-U-Card International CEO Walter Forbes sees an improvement shortly down the road (see "New Faces of 1984," page 174).

Pegging the INC. 100's return on equity is difficult, if not impossible. Small growth companies in general are highly leveraged, and the companies that form the INC. 100 are no exception. Substantial changes in equity due to new stock issues, coupled with the idiosyncracies of calculating return ratios, further distort the figures. By INC. estimates, however, the 1983 return on equity among the 81 companies showing aftertax profit ranges from 1.34% (Genentech) to 37.9% (AGS Computers Inc. [#82]), with a median of 13.8%. "I often say that we have such a high return on equity because we have such an understated balance sheet," jokes AGS Computers CEO Lawrence Schoenberg. AGS, Schoenberg explains, has focused directly on return-on-equity (ROE) since the company initiated its acquisition strategy more than three years ago, eventually buying up 7 companies without increasing debt to fund expansion; the goal, he says, is to maintain ROE at 1.5 to 2 times the industry average, "which is not going to be easy."

> Overall, 25 of the companies more than doubled their profits between 1982 and '83; 9 climbed into the black.

As with any ranking of elite companies, the 1984 INC. 100 list raises curiosity about the companies that finished as runners-up. Swanton Corp., a $54-million diversified financial services firm with widespread coal operations, emerged as #101. The New York City company, which chalked up a five-year sales gain of 778%, had earned slots on three previous INC. 100 rosters. Among other runners-up are at least 100 companies that have more than quadrupled or quintupled their sales since 1979. They include 27 members of last year's INC. 100 (see "Whatever Happened to the Class of '83?") and such fast-track performers as Robotic Vision Systems, KMW Systems, Micro Bio-Medics, and Kroy—all of whom have increased their sales more than 700% in the past five years. —*Bradford W. Ketchum Jr.*

INC. 100 INDEX

Company (rank)	Company (rank)	Company (rank)	Company (rank)
AGS Computers (82)	Concept Development (51)	Home Health Care of America (25)	Pope, Evans & Robbins (55)
AMCable TV Industries (94)	Consul (6)	ISC Systems (40)	Protocol Computers (13)
ASK Computer Systems (57)	Continental Health Affiliates (70)	Independence Health Plan (7)	Psych Systems (19)
Altos Computer Systems (28)	Crime Control (58)	Information Resources (15)	Publishers Equipment (29)
Amber Resources (92)	Cybermedic (76)	Interand (66)	Quality Micro Systems (38)
Andover Controls (88)	Data Switch (34)	JP Industries (50)	Rexon (22)
Andros Analyzers (79)	Datasouth Computer (47)	Jeffrey Martin (75)	Scientific Laboratories (77)
Applied Circuit Technology (12)	Diasonics (27)	Kaypro (42)	Scientific Leasing (83)
Atlantic Southeast Airlines (10)	Distributed Logic (48)	Kloss Video (31)	Servamatic Solar Systems (18)
Avant-Garde Computing (72)	Doran Energy (56)	Lane Telecommunications (100)	Standun (85)
BGS Systems (71)	Eaton Financial (95)	Lifeline Systems (24)	TVI Energy (46)
BRAE (11)	Electro-Biology (30)	Margaux Controls (21)	Tandon (20)
BSN (65)	Electro-Kinetic Systems (68)	Masstor Systems (41)	TeleVideo Systems (8)
Biomet (63)	Emulex (4)	Medical Graphics (49)	Teleconcepts (84)
Biosearch Medical Products (60)	Endevco (1)	Micom Systems (61)	Tender Loving Care (54)
Byers Communications Systems (74)	Fibronics (45)	Movie Systems (96)	Terrano (53)
C. P. Rehab (69)	Forum Group (98)	NBI (97)	Texas Energies (81)
Centuri (39)	Genentech (62)	Nautilus Enviromedical Systems (89)	Ultimate (3)
Chemfix Technologies (90)	Genex (23)	Novan Energy (32)	United States Health Care Syst. (91)
Cincinnati Microwave (33)	HCW Oil & Gas (36)	Nugget (43)	Valex Petroleum (93)
Ciprico (37)	Harris & Paulson (67)	Nutri/System (78)	Video Connection of America (44)
Cornair (59)	Health Extension Services (99)	Onyx-IMI (16)	Wedtech (52)
Comp-U-Card International (87)	Healthdyne (5)	Phoenix American (73)	Yankee Oil & Gas (2)
Compucare (80)	Helionetics (64)	Pizza Time Theatre (17)	Zitel (9)
ComputerCraft (14)	Home Depot (26)	Polymeric Resources (86)	ZyMOS (35)

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Rank '84	Rank '83	Company	Sales growth (1979-83) Percent increase	Sales growth (1979-83) Compound annual rate	Sales ($000) '83	Sales ($000) (rank)	Sales ($000) '79
1	□	**Endevco** (Dallas)	43,670%	357%	$92,355	(14)	$211
2	□	**Yankee Oil & Gas** (Cohasset, MA)	29,915	316	82,241	(17)	274
3	□	**Ultimate** (Clark, NJ)	14,762	249	39,236	(30)	264
4	□	**Emulex** (Costa Mesa, CA)	11,874	231	31,012	(39)	259
5	24	**Healthdyne** (Marietta, GA)	10,336	220	134,000[1]	(11)	1,284
6	17	**Consul** (Minneapolis)	9,643	214	32,443	(37)	333
7	□	**Independence Health Plan** (Southfield, MI)	7,583	196	36,649	(32)	477
8	□	**TeleVideo Systems** (Sunnyvale, CA)	7,375	194	168,718	(5)	2,257
9	□	**Zitel** (San Jose, CA)	7,115	191	11,039	(64)	153
10	□	**Atlantic Southeast Airlines** (College Park, GA)	6,696	187	23,785	(45)	350
11	1	**BRAE** (San Francisco)	6,557	186	322,479	(1)	4,844
12	□	**Applied Circuit Technology** (Anaheim, CA)	6093	181	14,924	(58)	241
13	□	**Protocol Computers** (Woodland Hills, CA)	5,542	174	11,002	(65)	195
14	□	**ComputerCraft** (Houston)	5,458	173	45,966	(26)	827
15	□	**Information Resources** (Chicago)	5,322	171	21,093	(47)	389
16	□	**Onyx-IMI** (Cupertino, CA)	5,316	171	74,200[1]	(21)	1,370
17	3	**Pizza Time Theatre** (Sunnyvale, CA)	5,298	171	165,500[2]	(8)	3,066
18	□	**Servamatic Solar Systems** (Concord, CA)	4,564	161	31,200	(38)	669
19	□	**Psych Systems** (Baltimore)	4,522	161	5,500[1]	(83)	119
20	12	**Tandon** (Chatsworth, CA)	4,521	161	303,369	(2)	6,565
21	□	**Margaux Controls** (San Jose, CA)	4,377	159	20,506	(48)	458
22	□	**Rexon** (Culver City, CA)	4,259	157	13,251	(62)	304
23	□	**Genex** (Rockville, MD)	4,253	157	11,100	(63)	255
24	□	**Lifeline Systems** (Waltham, MA)	4,205	156	9,644	(73)	224
25	□	**Home Health Care of America** (Newport Beach, CA)	3,648	147	38,983	(31)	1,040
26	□	**Home Depot** (Atlanta)	3,546	146	256,100	(3)	7,025
27	□	**Diasonics** (Milpitas, CA)	3,306	142	166,800	(7)	4,897
28	2	**Altos Computer Systems** (San Jose, CA)	3,109	138	74,587	(20)	2,324
29	□	**Publishers Equipment** (Carrollton, TX)	2,833	133	22,000[1]	(46)	750
30	7	**Electro-Biology** (Fairfield, NJ)	2,810	132	26,600	(42)	914
31	□	**Kloss Video** (Cambridge, MA)	2,686	130	20,396	(49)	732
32	□	**Novan Energy** (Boulder, CO)	2,672	129	9,451	(74)	341
33	□	**Cincinnati Microwave** (Cincinnati)	2,644	129	57,106	(23)	2,081
34	25	**Data Switch** (Norwalk, CT)	2,610	128	36,199	(33)	1,336
35	□	**ZyMOS** (Sunnyvale, CA)	2,436	124	8,926	(75)	352
36	□	**HCW Oil & Gas** (Boston)	2,381	123	10,793	(66)	435
37	□	**Ciprico** (Plymouth, MN)	2,373	123	3,586	(95)	145
38	□	**Quality Micro Systems** (Mobile, AL)	2,289	121	14,572	(59)	610
39	□	**Centuri** (Hialeah, FL)	2,135	117	140,000[1]	(10)	6,263
40	4	**ISC Systems** (Spokane, WA)	2,017	114	79,800	(18)	3,770
41	□	**Masstor Systems** (Santa Clara, CA)	1,999	114	20,170	(51)	961
42	□	**Kaypro** (Solana Beach, CA)	1,870	111	75,253	(19)	3,819
43	33	**Nugget** (Bloomington, MN)	1,798	109	9,719	(72)	512
44	□	**Video Connection of America** (Malibu, CA)	1,740	107	1,950	(98)	106
45	□	**Fibronics** (Hyannis, MA)	1,702	106	4,650[1]	(86)	258
46	□	**TVI Energy** (Beltsville, MD)	1,691	106	3,116[1]	(97)	174
47	□	**Datasouth Computer** (Charlotte, NC)	1,670	105	17,700	(54)	1,000
48	□	**Distributed Logic** (Garden Grove, CA)	1,655	105	10,248	(69)	584
49	23	**Medical Graphics** (St. Paul, MN)	1,640	104	4,680	(85)	269
50	□	**JP Industries** (Ann Arbor, MI)	1,582	102	47,469	(24)	2,823

[1]Estimate (12/31 closing figure unavailable at press time), [2]nine-month figure, [3]1982 figure, 12/31 figure unavailable at press time

Net income ($000) '83	'79	Equity '83	No. of employees '83	(rank)	'79	Acquisitions '79-'83	Date inc.	Business description
$1,553	($40)	$9,287[1]	50	(84)	4	0	1977	Oil & gas prod., expl., process., transport
5,357	51	18,882	120	(66)	5	3	1977	Oil & gas drilling, svc., sales, transport
4,614	31	19,789	66	(81)	3	1	1979	Mfr. minicomputer hardware & software
5,619	25	29,022	407	(28)	12	0	1979	Mfr. computer peripherals
10,000[1]	142	140,000	2,000	(7)	200	13	1970	Mfr. electronic medical equip. & devices
1,149	(148)	23,991	3,600	(2)	40	3	1978	Develops/operates Mexican restaurants
3,650	(324)	12,923	106	(69)	10	0	1978	Health maintenance, medical centers
22,398	197	138,862	867	(17)	11	0	1976	Mfr. video display terminals for non-IBM
1,263	(161)	1,988	112	(67)	13	0	1979	Mfr. semiconductor memory systs.
1,803	(259)	12,907	333	(36)	19	1	1979	Regional airline
3,960	1,073	59,080	1,208	(11)	19	8	1977	Leases/manages transportation equip.
2,256	(3)	14,053	162	(56)	1	1	1977	Mfr. testing equip. for hard disk drives
1,505	2	10,342	80	(77)	4	0	1976	Mfr. microprocess.-based protocol conversion prods.
221	(10)	1,887	356	(33)	9	4	1977	Microcomputer systs.
3,702	(361)	26,649	430	(27)	12	0	1977	Market research computer systs.
3,700	(1,647)	31,800	800	(18)	110	1	1977	Mfr. rigid disk drives & computers
(5,974)	(1,324)	49,972[2]	940	(14)	33	2	1978	Franchisor family entertainment restaurants
2,140	2	3,380	900	(16)	3	1	1973	Mfr. residential solar heating units
(1,000)[1]	(49)	3,362[3]	48	(85)	4	0	1977	Mfr. psych. testing & computerized test systs.
23,658	161	212,026	3,300	(3)	219	0	1976	Mfr. computer disk drives
1,368	(465)	9,823	229	(47)	38	2	1979	Mfr. computerized bldg. management systs.
(703)	(1,418)	10,877	133	(60)	70	0	1978	Mfr. small business computer systs. & peripherals
(5,400)	(292)	37,900	230	(46)	19	0	1977	Mfr. recombinant DNA technology
348	(348)	9,940	175	(54)	10	0	1974	Mfr. hospital-provided home emergency response
4,483	(212)	50,458	461	(24)	25	1	1979	At-home medical therapies
9,500[1]	1,445	61,873[2]	2750	(6)	500	0	1978	Home improvement centers
(64,800)	(540)	107,700	1900	(8)	190	7	1978	Mfr. diagnostic imaging systs.
7,921	236	80,376	400	(30)	14	0	1977	Mfr. multiuser microcomputers
(400)	2	6,888	185	(51)	30	3	1979	Mfr. printing presses
3,158	(2,371)	17,140	265	(42)	40	0	1975	Mfr. medical equip.
1,003	(817)	8,300	350	(35)	75	1	1977	Mfr. high-performance projection TV systs.
102	(28)	2,588	125	(65)	8	1	1978	Mfr. solar water-heating appliances, components
10,015	282	9,084	200	(49)	75	0	1978	Mfr. radar warning receivers
6,078	56	43,749	362	(32)	20	0	1977	Mfr. data processing control systs.
(8,151)	36	27,976	252	(44)	9	0	1978	Mfr. integrated circuits
4,456	304	14,006	128	(63)	4	0	1975	Oil & gas partnerships
596	24	7,281	34	(90)	4	0	1978	Mfr. computer parts
2,476	76	16,826	199	(50)	18	0	1977	Mfr. intelligent graphics processors
(572)[2]	(692)	3,323[3]	300	(38)	52	1	1968	Mfr. video games
3,966	366	48,072	1392	(10)	67	0	1977	Mfr. microprocessor-based terminal systs.
(8,777)	(1,391)	48,442	288	(39)	50	0	1976	On-line data systs.
12,888	(32)	39,899	543	(23)	73	0	1953	Mfr. portable microcomputers
(6,778)	(59)	6,271	14	(99)	5	1	1976	Oil & gas expl.
100[1]	4	2,200[1]	30	(93)	3	2	1979	Mfr. home video prods.
300[1]	(83)	8,000[1]	180	(53)	30	0	1977	Mfr. fiber-optics communications
51[1]	(771)	2,225[1]	45	(88)	11	0	1977	Mfr. radiant heating panels, thermal signature targets
2,600	220	13,600	164	(55)	13	0	1977	Mfr. matrix printers
1,100	(11)	6,013	85	(75)	9	0	1977	Mfr. intelligent disk & tape controllers
142	2	2,639	36	(89)	4	0	1977	Mfr. computerized medical testing systs.
2,370	51	8,476	750	(19)	45	8	1977	Mfr. plumbing fixtures & accessories

Rank '84	Rank '83	Company	Sales growth (1979-83) Percent increase	Sales growth (1979-83) Compound annual rate	Sales ($000) '83	Sales ($000) (rank)	Sales ($000) '79
51	□	**Concept Development** (Omaha)	1,477	99	27,613	(40)	1,751
52	□	**Wedtech** (New York City)	1,461	99	27,000[1]	(41)	1,730
53	□	**Terrano** (Lincoln, NE)	1,456	99	7,096[2]	(78)	456
54	□	**Tender Loving Care** (Lake Success, NY)	1,394	97	6,200	(80)	415
55	□	**Pope, Evans & Robbins** (New York City)	1,354	95	184,065	(4)	12,656
56	□	**Doran Energy** (Alice, TX)	1,351	95	3,846	(93)	265
57	11	**ASK Computer Systems** (Los Altos, CA)	1,319	94	39,388	(29)	2,775
58	19	**Crime Control** (Indianapolis)	1,305	94	40,508	(27)	2,883
59	27	**Comair** (Hebron, KY)	1304	94	19,504	(52)	1,389
60	□	**Biosearch Medical Products** (Somerville, NJ)	1,300	93	9,800[1]	(70)	700
61	15	**Micom Systems** (Chatsworth, CA)	1,295	93	84,276	(16)	6,042
62	16	**Genentech** (San Francisco)	1,280	93	47,003	(25)	3,406
63	□	**Biomet** (Warsaw, IN)	1,273	92	7,099	(77)	517
64	□	**Helionetics** (Irvine, CA)	1,262	92	17,200[1]	(56)	1,263
65	82	**BSN** (Dallas)	1,260	92	20,267	(50)	1,490
66	□	**Interand** (Chicago)	1,247	92	4,350	(87)	323
67	□	**Harris & Paulson** (Englewood, CO)	1,246	92	3,445	(96)	256
68	□	**Electro-Kinetic Systems** (Wilmington, DE)	1,233	91	4,000	(90)	300
69	73	**C. P. Rehab** (New York City)	1,221	91	10,609	(67)	803
70	□	**Continental Health Affiliates** (Englewood Cliffs, NJ)	1,182	89	14,111	(60)	1,101
71	□	**BGS Systems** (Waltham, MA)	1,180	89	5,813	(82)	454
72	□	**Avant-Garde Computing** (Cherry Hill, NJ)	1,156	88	7,209	(76)	574
73	59	**Phoenix American** (Mill Valley, CA)	1,118	87	26,199	(43)	2,151
74	□	**Byers Communications Systems** (Atlanta)	1,100	86	15,600	(57)	1,300
75	□	**Jeffrey Martin** (Union, NJ)	1,055	84	65,945	(22)	5,709
76	□	**Cybermedic** (Boulder, CO)	1,048	84	1,309	(100)	114
77	□	**Scientific Laboratories** (Denver)	1,032	83	4,210	(88)	372
78	26	**Nutri/System** (Huntingdon Valley, PA)	1,018	82	167,892	(6)	15,023
79	□	**Andros Analyzers** (Berkeley, CA)	984	81	6,050	(81)	558
80	□	**Compucare** (McLean, VA)	978	81	39,879	(28)	3,700
81	34	**Texas Energies** (Amarillo, TX)	964	81	10,504	(68)	987
82	□	**AGS Computers** (Mountainside, NJ)	952	80	145,911	(9)	13,875
83	78	**Scientific Leasing** (Farmington, CT)	949	80	17,949	(53)	1,711
84	□	**Teleconcepts** (Newington, CT)	942	80	34,475	(35)	3,308
85	□	**Standun** (Rancho Dominguez, CA)	937	79	35,357	(34)	3,408
86	□	**Polymeric Resources** (Clifton, NJ)	920	79	5,122	(84)	502
87	□	**Comp-U-Card International** (Stamford, CT)	919	79	4,156	(89)	408
88	□	**Andover Controls** (Andover, MA)	914	78	9,725	(71)	959
89	□	**Nautilus Enviromedical Systems** (Houston)	912	78	3,776	(94)	373
90	□	**Chemfix Technologies** (Kenner, LA)	874	77	6,353	(79)	652
91	39	**United States Health Care Systems** (Willow Grove, PA)	866	76	95,677	(13)	9,902
92	□	**Amber Resources** (Denver)	858	76	1,312	(99)	137
93	□	**Valex Petroleum** (Denver)	848	75	3,869[1]	(92)	408
94	60	**AM Cable TV Industries** (Coopersburg, PA)	848	75	32,764	(36)	3,456
95	□	**Eaton Financial** (Framingham, MA)	822	74	3,994	(91)	433
96	10	**Movie Systems** (Des Moines)	814	74	13,579	(61)	1,485
97	30	**NBI** (Boulder, CO)	814	74	120,937	(12)	13,236
98	□	**Forum Group** (Indianapolis)	812	74	89,597	(15)	9,827
99	63	**Health Extension Services** (Syosset, NY)	790	73	24,864	(44)	2,794
100	□	**Lane Telecommunications** (Houston)	783	72	17,237	(55)	1,952

[1]Estimate (12/31 closing figure unavailable at press time), [2]nine-month figure, [3]1982 figure, 12/31 figure unavailable at press time

Net income ($000) '83	'79	Equity '83	No. of employees '83	(rank)	'79	Acquisitions '79-'83	Date inc.	Business description
2,997	210	9,648	460	(25)	36	1	1978	Restaurant franchisee
5,000[1]	215	29,000[1]	450	(26)	100	0	1965	Mfr. machine parts & engines
(359)[2]	68	(983)[3]	88	(74)	10	0	1977	Health-care computer systs. software
65	(12)	3,990	90	(71)	15	2	1978	Provides health-care services
7,828	283	42,546	400	(29)	150	3	1926	Mfr. protective fabrics, clothing, gear
(4)	(17)	2,691	30	(92)	5	1	1972	Oil & gas prod.
3,905	237	28,808	275	(40)	30	1	1974	Management info. systs.
4,764	509	36,649	921	(15)	55	15	1978	Electronic security systs.
1,354	120	4,394	326	(37)	35	0	1977	Regional airline
400[1]	77	4,600[1]	128	(62)	60	1	1975	Enteral feeding systs., diagnostics
13,434	794	58,530	956	(13)	123	6	1976	Mfr. data-communications equip.
1,128	116	96,382	544	(22)	55	0	1976	Mfr. pharmaceuticals & industrial chemicals
725	(106)	4,069	83	(76)	24	0	1977	Mfr. orthopedic support devices
2,200[1]	656	11,000[1]	353	(34)	50	2	1970	Mfr. power conversion equip. & lasers
537[2]	121	15,246[1]	250	(45)	21	6	1972	Mail-order sports equip.
(450)	(93)	6,195	62	(83)	7	0	1969	Mfr. teleconferencing & graphic systs.
(1,100)	0	1,800	70	(79)	10	0	1977	Mfr. office automation for legal industry
222[2]	(20)	1,529[2]	8	(100)	3	0	1972	Mfr. special coatings for computer industry
1,904	198	44,238	102	(70)	15	2	1972	Cardiac rehab. management svcs.
1,532	(192)	7,500	110	(68)	25	1	1976	Health-care services
896	(42)	1,479	15	(97)	15	0	1975	Systs. diagnostic software
578	36	404	89	(73)	17	0	1978	Integrated software-based systs.
6,003	525	18,558	139	(59)	29	0	1972	Ltd. prtnshps. in data process. equip. leasing
967	80	1,105	260	(43)	32	0	1977	Mfr. telecommunications systs.
8,076	400	18,481	142	(57)	71	0	1960	Health & beauty aids
(567)	(65)	2,833	23	(94)	2	0	1977	Computer-assisted medical diagnostics
(1,198)	10	2,542	130	(61)	6	2	1974	Cancer diagnostic svcs. & prods.
13,098	2,776	52,992	3,100	(4)	300	3	1976	Owner/franchisor weight-loss centers
812	(110)	1,560	66	(80)	25	0	1968	Mfr. gas-measuring instruments
2,134	98	25,211	700	(20)	165	3	1975	Software, info. process. for hospitals & health-care
421	102	12,432	127	(64)	6	0	1966	Oil & gas expl. & prod.
5,785	483	35,222	1,100	(12)	257	7	1967	Computer syst. development
2,415	252	20,078	65	(82)	12	0	1968	Leases data process. equip. to health-care providers
2,015	10	21,000	75	(78)	35	0	1969	Mfr. decorative telephones
1,836	(67)	13,937	382	(31)	82	3	1968	Mfr. industrial machines, lasers
403	57	3,325	16	(95)	11	0	1976	Plastic-waste recycling
(2,519)	(1,015)	(6,286)	90	(72)	40	0	1973	Electronic shopping devices, databases
1,016	(105)	2,517	141	(58)	22	0	1976	Mfr. microprocessor-based bldg. automat. systs.
642	40	(215)	45	(87)	12	0	1974	Mfr. life-support systs.
527	(133)	1,752	47	(86)	25	0	1977	Treats liquid hazardous & non-hazardous waste
3,206	(556)	42,628	268	(41)	80	0	1976	Health care; HMO
(144)	16	4,086	16	(96)	3	2	1978	Oil & gas exploration, development
0[1]	133	10,000[1]	14	(98)	4	2	1975	Oil & gas expl.
1,072	194	15,827	652	(21)	143	1	1974	Aerial cable distribution networks
419	69	1,317	32	(91)	7	0	1974	Leases office equip. & furniture
(1,255)	(485)	(248)	183	(52)	45	3	1975	Operates cable TV systs.
4,590	1,651	86,432	1,846	(9)	248	0	1973	Mfr. microprocessor-controlled word process. systs.
3,851	1,003	44,796	4,000	(1)	120	6	1969	Provides health care
539	(197)	9,765	2,819	(5)	490	3	1975	Home health care & institutional staffing
522	(49)	9,179	200	(48)	35	1	1976	Mfr. microprocessor-based terminals & systs.

HOW THE INC. 100 ARE SELECTED

Companies are ranked according to their percentage increase in sales during the previous five years, in this case, 1979–83. To be included in the INC. 100, each company must meet the following criteria:

1. The company is an independent, publicly held corporation in a manufacturing, mining, or service industry. Utilities, banks, and other financial institutions are excluded.

2. The company was publicly held as of December 31, 1983.

3. The company shows an operating/sales history of at least five years, with an increase in its fiscal 1983 closing figure. Companies showing growth in the 1979–83 base period but a sales decline in the last year are excluded.

4. The company's 1979 sales were at least $100,000 but less than $25 million.

Company data is gathered from prospectuses, 10-Ks, annual reports, and various directories. Additional information is collected from a wide array of newsletters, trade magazines, and other business publications. Telephone interviews are conducted with executives of the corporations to verify the figures.

By applying the four criteria listed above, and by using a five-year growth rate of at least 400%, INC. reduced the number of companies that potentially qualified for the list from 13,000 to 194. Among those considered were 888 companies that went public in 1983.

An editorial team led by senior editor Bradford W. Ketchum Jr. selected the 1984 INC. 100. Chief researcher was Nell Margolis, assisted by Susan Buchsbaum, Donna Fenn, Julia Homer, and Joshua Hyatt. Data processing was directed by Elyse Friedman, senior research editor.

WHO'S WHO BY INDUSTRY: PETRO SETS THE PACE

The oil and gas industry led the growth pack among the 1984 INC. 100. Led by Endevco, which multiplied its sales 437.7 times in the past five years, the seven companies in the oil and gas business averaged a five-year sales multiple of 114.4. Ranking second and third in growth are companies in the food service and transportation industries, with average five-year multiples of 55.7 and 49.5, respectively.

As a group, the 21 makers of computers and computer-related products have expanded their sales an average of 47.1 times since 1979, while those in the data processing and software fields have registered a more modest 16.4 multiple.

The miscellaneous category includes leaders in printing presses, gas-measuring instruments, hazardous-waste treatment, and office-equipment leasing.

Oil & Gas (114.4)
Endevco (437.7)
Yankee Oil & Gas (300.1)
Nugget (19.0)
Doran Energy (14.5)
Texas Energies (10.6)
Amber Resources (9.6)
Valex Petroleum (9.5)

Food Services (55.7)
Consul (97.4)
Pizza Time Theatre (54.0)
Concept Development (15.8)

Transportation (49.5)
Atlantic Southeast Airlines (68.0)
BRAE (66.6)
Comair (14.0)

Computers & Related Products (47.1)
Ultimate (148.6)
Emulex (119.7)
TeleVideo Systems (74.8)
Zitel (72.2)
Applied Circuit Technology (61.9)
Protocol Computers (56.4)
ComputerCraft (55.6)
Information Resources (54.2)
Onyx-IMI (54.2)
Tandon (46.2)
Rexon (43.6)
Altos Computer Systems (32.1)
ZyMOS (25.4)
Ciprico (24.7)
Quality Micro Systems (23.9)
ISC Systems (21.2)
Kaypro (19.7)
Datasouth Computer (17.7)
Distributed Logic (17.5)
Andover Controls (10.1)
Lane Telecommunications (8.8)

Heating Equipment (30.8)
Servamatic Solar Systems (46.6)
Novan Energy (27.7)
TVI Energy (17.9)

Medical/Health Products & Services (25.6)
Healthdyne (104.4)
Independence Health Plan (76.8)
Psych Systems (46.2)
Genex (43.5)
Lifeline Systems (43.1)
Home Health Care of America (37.5)
Diasonics (34.1)
Electro-Biology (29.1)
Medical Graphics (17.4)
Terrano (15.6)
Tender Loving Care (14.9)
Biosearch Medical Products (14.0)
Genentech (13.8)
Biomet (13.7)
Electro-Kinetic Systems (13.3)
C. P. Rehab (13.2)
Continental Health Affiliates (12.8)
Jeffrey Martin (11.6)
Cybermedic (11.5)
Scientific Laboratories (11.3)
Nautilus Enviromedical System (10.1)
United States Health Care System (9.7)
Forum Group (9.1)
Health Extension Services (8.9)

Consumer & Consumer Related Products (20.9)
Home Depot (36.5)
Kloss Video (27.9)
Cincinnati Microwave (27.4)
Centuri (22.4)
Video Connection of America (18.4)
JP Industries (16.8)
Pope, Evans & Robbins (14.5)
BSN (13.6)
Teleconcepts (10.4)

Data Processing & Software (16.4)
Margaux Controls (44.8)
Data Switch (27.1)
Masstor Systems (21.0)
ASK Computer Systems (14.2)
Helionetics (13.6)
Harris & Paulson (13.5)
BGS Systems (12.8)
Avant-Garde Computing (12.6)
Phoenix American (12.2)
Compucare (10.8)
AGS Computers (10.5)
Scientific Leasing (10.5)
Comp-U-Card International (10.2)

Telecommunications & Cable TV (12.2)
Fibronics (18.0)
AM Cable TV Industries (9.5)
Movie Systems (9.1)

Data Communications & Word Processing (12.1)
Micom Systems (13.9)
Interand (13.5)
Byers Communications Systems (12.0)
NBI (9.1)

Miscellaneous (11.2)
Publishers Equipment (29.3)
HCW Oil & Gas (24.8)
Wedtech (15.6)
Crime Control (14.1)
Nutri/System (11.2)
Andros Analyzers (10.8)
Standun (10.4)
Polymeric Resources (10.2)
Chemfix Technologies (9.7)
Eaton Financial (9.2)
Fibronics (18.0)
AM Cable TV Industries (9.5)
Movie Systems (9.1)

100

Investing in Growth Companies

THE YEAR OF THE FAST-GROWTH BEAR

When the Big Board sniffles, it's the INC. 100 that gets pneumonia. This year's 16% drop can in part be blamed on the earnings ailments of larger companies.

Once again, INC. has engaged in the fruitless exercise of purchasing a hypothetical $100 worth of shares of each company on the INC. 100 list and seeing how the paper investment would have fared—this time, from March 16, 1983, to March 15, 1984. We say "fruitless" because, even with actual greenbacks, the exercise can't be done. After all, no one knows a year in advance which companies will be admitted to the next distinguished family of fastest-growers. Still, the outcome is not without its academic interest.

Sad to say, INC. chalked up the poorest result among four stock market indexes—although not nearly by the largest degree in the five-year history of the INC. 100. Two years back, in the recession of 1982, INC. 100 stocks shed a hefty 27%. But last year, they led the batch with a gain of 72%. This year, they were down again, by 16%, despite gains in other averages—which shows that fast sales growth alone does not a stock market winner make. As has been pointed out elsewhere in this issue, 1984's median compound annual sales growth rate was a hefty 101%; yet the INC. 100 median stock market move was a *loss* of about 12%.

The current batch is distinctive in the unusually high number of stocks that entered the market via initial public offerings in the course of the year. No fewer than 91 are traded over-the-counter, usually the market of necessity for young, lightly capitalized IPOs. While IPOs were a hot arena for a few months, they cooled off markedly toward winter, and many issues dropped well below their offering price. Of the 38 IPOs on the list, only 8 managed to hold a gain at the end.

Indeed, anybody who stubbornly husbanded stocks of smaller-cap companies can probably provide firm, if dismayed, witness that the bear market started as far back as a year ago. Many stocks of smaller companies topped out way back last summer, while the big blue chips of the Dow Jones Industrials went on to set a new all-time high in November of 1983.

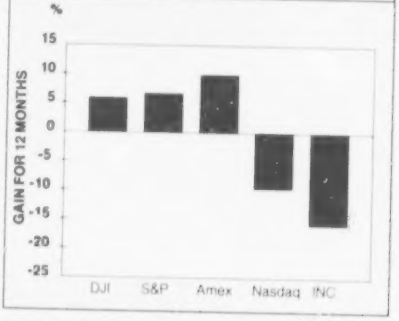
Unlike previous years, high interest rates couldn't be blamed for stifling profits in 1983. Rather, the prime culprit was the fear of a lack of working capital. The prominent case of Osborne Computer Corp. was typically unsettling, as the private company soared to nine-figure sales in 18 months, then couldn't even pay its bills to vendors. Ironically, the public offering which that company was about to undertake could well have saved it. Nevertheless, investors took the lesson of Osborne to be that thinly capitalized fast growth was just too frightening.

In other instances, overcrowded markets hurt quarterly earnings growth, which in turn sent stockholders scurrying for the exit. Many of the abandoned stocks were in technology industries, a factor that dragged INC.'s results down even beyond the general run of the speculative over-the-counter market, whose average also declined significantly. Of the 34 INC. 100 companies involved in computers and data processing, a scant half dozen managed stock market gains, despite their heady sales growth rates. The atmosphere for technology investment turned gloomy well beyond what conditions warranted. On the other hand, even astute investors are having trouble picking the probable stayers among computer companies.

Then, too, the troubles of larger, Big Board companies like Texas Instruments, Coleco Industries, and Digital Equipment didn't help the newer entries, either, even though the latter can be quicker to readjust their marketing strategies and product lines. It will undoubtedly take the investment community a while to understand the changing nature of small businesses' approach to marketing, just as it took many small businesses themselves time to appreciate the compelling nature of that force.

Even so, it is encouraging to note that the biggest winner, Byers Communications Systems Inc. (#74)—up 148%—is in the high-technology business. And, as we have seen many times, things can

INC. VERSUS POPULAR AVERAGES



RELATIVE MARKET PERFORMANCE

	3/16/83	3/16/84	% gain
INC. 100	$ 100.0	$ 84.0	(16)
DJI	1,116	1,184	06
S&P 400	168	180	07
Amex	191	212	10
NASDAQ	316	289	(09)

Due to the fact that the criteria for inclusion in the INC. 100 *rules out capital institutions such as banks and holding companies,* INC. *pits the stock market performance of its entries against the industrial components, rather than the composites, of common stock indexes. Unlike the other averages,* INC.*'s "average" is reborn each year with a new group of stocks (see text), and so cannot be compared with past listings. But adding in the negative 12-month result of the OTC market, it is clear that the period involved—mid-March 1983 to mid-March 1984—was generally not the best of times for the stocks of smaller companies, despite enhanced revenue growth.*

change mighty fast. Last year, for example, it was the sorry oils that were the INC. 100's albatross; this year, four of seven oil and gas issues were able to post gains against the trend—and none was a takeover candidate. One, Yankee Oil & Gas Inc., took second place with a profit of 79%. The oil group's performance, at least to some degree, gives substance to our closing thought last year, when we optimistically noted that "it is not beyond the realm of possibility that . . . this group could lead next year's INC. 100 gainers."

Of the 34 INC. 100 companies involved in computers and data processing, only 6 managed stock market gains, despite heady sales growth rates.

Viewing the litter of 73 losers, we offer no such solace this time, except to note that if the record growth rates of the 1984 INC. 100 can't be converted to solid per-share earnings over the months to come, either the economy is more troubled than it seems, or newly public small-business management still has a lot to learn. Chances are that neither is entirely true. In which case investors should perhaps be taking a second look. *Robert A. Mamis*

INC. 100 MARKET PERFORMANCE

Company (symbol/exchange)	1984 rank	3/83	3/84	$100 Worth
1. **Byers Communications** (BYCM/O)	74	$7.88	$19.50	$247.62
2. **Yankee Oil & Gas** (YNK/A)[1]	2	7.45	13.38	179.45
3. **Independence Health** (IHPI/O)[29]	7	13.44	23.50	174.88
4. **Health Extension Srvcs.** (HLP/A)	99	10.13	17.50	172.84
5. **Electro-Kinetic** (EKSIA/O)[28]	68	1.38	2.38	172.73
6. **Servamatic Solar** (SSSI/O)	18	1.94	3.25	167.74
7. **U.S. Health Care** (USHC/O)[2]	91	15.22	22.50	147.81
8. **Concept Develop.** (CDII/O)[3,31]	51	14.64	21.00	143.41
9. **Helionetics** (HILX/O)	64	14.81	20.75	140.08
10. **Movie Systems** (MOVSC/O)[4]	96	2.37	3.25	137.29
11. **Wedtech** (WEDT/O)[27]	52	15.88	21.50	135.43
12. **Chemfix Tech.** (CFIX/O)[5]	90	2.50	3.38	135.00
13. **Doran Energy** (DORE/O)	56	1.88	2.50	133.33
14. **Home Depot** (HOMD/O)[6]	26	15.00	19.50	130.00
15. **Andros Analyzers** (ANDY/O)	79	6.13	7.75	126.53
16. **JP Industries** (JPII/O)[30]	50	10.00	12.50	125.00
17. **Ultimate** (ULT/A)[7]	3	13.08	16.25	124.20
18. **Emulex** (EMLX/O)[8]	4	14.75	18.00	122.03
19. **Kloss Video** (KLOS/O)	31	6.88	8.25	120.00
20. **Comair** (COMR/O)	59	9.88	11.75	118.99
21. **Texas Energies** (TXEN/O)	81	2.75	3.25	118.18
22. **AGS Computers** (AGSC/O)	82	18.63	21.50	115.44
23. **Info. Resources** (IRIC/O)[9]	15	22.50	24.50	108.89
24. **Tender Loving Care** (TLCI/O)[28]	54	5.69	5.88	103.30
25. **Nugget** (NUGO/O)	43	0.97	1.00	103.23
26. **ASK Computer** (ASKI/O)[10]	57	14.94	15.25	102.09
27. **Distributed Logic** (DLOG/O)[25]	48	10.38	10.50	101.20
28. **Micom Systems** (MICS/O)[11]	61	34.88	34.75	99.64
29. **Eaton Financial** (EATO/O)[28]	95	8.19	8.00	97.71
30. **Consul** (CNSL/O)	6	13.56	13.25	97.70
31. **Scientific Leasing** (SG/A)	83	25.81	24.50	94.92
32. **Nautilus Enviromed.**(NENV/O)[29]	89	1.75	1.64	93.43
33. **Lane Telecommun.** (LNTL/O)[30]	100	7.50	7.00	93.33
34. **Endevco** (ENDV/O)[29]	1	5.31	4.88	91.76
35. **Fibronics** (FBRX/O)[29]	45	7.50	6.88	91.67
36. **Centurl** (CENT/O)	39	2.47	2.25	91.14
37. **Data Switch** (DASW/O)[12]	34	22.56	20.50	90.86
38. **Biomet** (BMET/O)[13]	63	10.81	9.75	90.17
39. **Zitel** (ZITL/O)[31]	9	10.19	9.00	88.34
40. **Cincinn. Microwave** (CNMW/O)[31]	33	10.88	9.50	87.36
41. **BRAE** (BRAE/O)	11	13.25	11.50	86.79
42. **Rexon** (REXN/O)	22	14.00	12.00	85.71
43. **Genentech** (GENE/O)[14]	62	41.13	35.00	85.11
44. **Ciprico** (CPCI/O)[26]	37	13.25	11.00	83.02
45. **Andover Controls** (ANDO/O)[30]	88	10.00	8.25	82.50
46. **Comp-U-Card Int'l.** (CUCD/O)[28]	87	21.38	17.50	81.87
47. **Standun** (SDUN/O)[15]	85	9.60	7.75	80.73
48. **HCW Oil & Gas** (HCWO/O)[30]	36	12.88	10.25	79.61
49. **Continental Health** (CTHL/O)[23]	70	9.75	7.75	79.49
50. **ComputerCraft** (CRFT/O)[27]	14	9.13	7.25	79.45
51. **Amber Resources** (AMBR/O)	92	0.81	0.63	76.92
52. **Phoenix American** (PHXA/O)[16]	73	11.06	8.50	76.84
53. **Quality Micro** Systems(QMSI/O)	38	20.88	16.00	76.65
54. **Kaypro** (KPRO/O)[27]	42	10.31	7.88	76.36
55. **Compucare** (CMPC/O)[30]	80	15.00	11.25	75.00
56. **Genex** (GNEX/O)	23	17.94	13.38	74.56
57. **Terrano** (TRNO/O)[25]	53	7.50	5.50	73.33
58. **Tandon** (TCOR/O)[17]	20	19.25	14.00	72.73
59. **C.P. Rehab** (CRHB/O)[18]	69	16.50	12.00	72.73
60. **ISC Systems** (ISCS/O)	40	17.94	13.00	72.47
61. **Forum Group** (FOUR/O)[19]	98	7.13	5.13	71.93
62. **Valex Petroleum** (VALP/O)	93	0.66	0.47	71.43
63. **Atlantic S.E. Airlines** (ASAI/O)	10	12.63	8.75	69.31
64. **Novan Energy** (NOVN/O)	32	0.38	0.25	66.67
65. **Medical Graphics** (MGCC/O)	49	11.25	7.50	66.67
66. **Crime Control** (CRIM/O)	58	18.00	11.75	65.28
67. **Avant-Garde Comp.** (AVGA/O)[25]	72	23.75	15.25	64.21
68. **BSN** (BSN/A)	65	7.31	4.63	63.25
69. **Onyx-IMI** (ONIX/O)	16	10.00	6.13	61.25
70. **Polymeric Resources** (POLR/O)	86	6.25	3.75	60.00
71. **Protocol Computers** (PCII/O)[28]	13	12.06	7.00	58.03
72. **Datasouth Comp.**(DSCC/O)[27]	47	11.88	6.63	55.79
73. **Biosearch Med. Prods.** (BMPI/O)	60	11.88	6.63	55.79
74. **Altos Computer** (ALTO/O)	28	22.00	12.25	55.68
75. **Interand** (IRND/O)[25]	66	18.25	10.00	54.79
76. **TeleVideo Systems** (TELV/O)	8	22.88	12.38	54.10
77. **Publishers Equipment** (PECN/O)	29	12.50	6.75	54.00
78. **BGS Systems** (BGSS/O)[25]	71	23.50	12.50	53.19
79. **Jeffrey Martin** (JFRY/O)[24]	75	14.63	7.63	52.14
80. **NBI** (NBI/N)	97	41.13	21.38	51.98
81. **Scientific Labs** (SILA/O)[20]	77	2.97	1.50	50.53
82. **Applied Circuit** (ACRT/O)[27]	12	11.00	5.50	50.00
83. **ZyMOS** (ZMOS/O)[26]	35	11.38	5.50	48.35
84. **Pope, Evans & Robbins** (PER/A)	55	14.69	6.63	45.11
85. **Lifeline Systems** (LIFE/O)[26]	24	14.25	6.00	42.11
86. **Margaux Controls** (MRGX/O)[25]	21	17.50	7.25	41.43
87. **AM Cable TV Indust.** (AMTV/O)	94	7.00	2.88	41.07
88. **Cybermedic** (CMED/O)[26]	76	1.06	0.41	38.24
89. **TVI Energy** (TVIE/O)	46	4.50	1.69	37.50
90. **Healthdyne** (HDYN/O)[21]	5	27.08	9.88	36.46
91. **Video Connection** (VIDC/O)	44	5.69	2.00	35.16
92. **Electro-Biology** (EBII/O)[22]	30	23.92	8.25	34.49
93. **Masstor Systems** (MSCO/O)	41	18.13	6.25	34.48
94. **Home Health Care** (HHCA/O)	25	24.13	8.25	34.20
95. **Pizza Time Theatre** (CHKY/O)	17	16.75	5.25	31.34
96. **Psych Systems** (PSYC/O)	19	13.13	3.75	28.57
97. **Nutri/System** (NTR/N)	78	26.63	7.50	28.17
98. **Teleconcepts** (TCC/A)[23]	84	28.00	7.00	25.00
99. **Diasonics** (DNIC/O)	27	22.38	4.88	21.79
100. **Harris & Paulson** (HAPI/O)	67	13.88	1.38	9.91

[1]4:3 split, 7/83; [2]50% stock div., 5/83—3:2 split, 9/83; [3]5% stock div., 3/84; [4]4:3 split, 8/83; [5]3:1 split, 7/83; [6]2:1 split, 6/83; [7]3:2 split, 9/83; [8]2:1 split, 2/84; [9]2:1 split, 8/83; [10]2:1 split, 9/83; [11]2:1 split, 3/83; [12]2:1 split, 6/83; [13]2:1 split, 3/83—2:1 split, 7/83; [14]3:2 split, 3/83; [15]split, 6/83; [16]2:1 split, 9/83; [17]2:1 split, 4/83; [18]100% stock div., 3/83; [19]2:1 split, 8/83; [20]recapitalized, 1:10, 6/83; [21]3:2 split, 5/83; [22]3:2 split, 3/83; [23]first public 4/83; [24]first public 5/83; [25]first public 6/83; [26]first public 7/83; [27]first public 8/83; [28]first public 9/83; [29]first public 10/83; [30]first public 11/83; [31]first public 12/83